St. Petersburg University
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Master in Management

Relationship between Dividend Payments and Stock Price Dynamics

Master's Thesis by the 2nd year student
Concentration – MIM
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ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЫ

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АННОТАЦИЯ

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Описание цели, задач и основных результатов	Цель данной магистерской диссертации состоит в том, чтобы проанализировать взаимосвязь между объявлениями о дивидендных выплатах и ценами акций компаний, торгующихся на Московской фондовой бирже в период 2012-2017 гг. Первая глава содержит теоретические аспекты выплат дивидендов, гипотезу эффективного рынка и группирует результаты предыдущих исследований. Во второй главе представлена подробная методология исследования и событийный анализ объявлений об изменениях дивидендных выплат. Исследование показало, что в целом увеличение размера дивидендных выплат положительно влияет на цены акций. Однако финансовый рынок отрицательно реагировал на объявления о снижении дивидендных выплат в более благоприятной экономической ситуации, в то время как в период кризиса акции генерировали положительную аномальную доходность. Таким образом, можно сделать вывод, что взаимосвязь между дивидендами и ценами акций неоднозначна и зависит от состояния экономики.
Ключевые слова	Дивидендная политика, цены акций, событийный анализ, финансовые рынки, сигнальная теория дивидендов, агентская теория

ABSTRACT

Master Student's Name	Dzhantelieva Zhasmina Talantovna
Master Thesis Title	Relationship Between Dividend Payments and Stock Price Dynamics
Faculty	Graduate School of Management
Main field of study	"Management" (specialization: Marketing)
Year	2018
Academic Advisor's Name	Garanina Tatiana Aleksandrovna, Associate Professor
Description of the goal, task, and main results	The goal of the master thesis is to analyse the relationship between dividend announcements and stock prices of companies listed on the Moscow Stock Exchange during the 2012 – 2017 period. The first chapter contains the theoretical aspects of dividend payments, efficient market hypothesis and aggregation of the results of previous studies. The second chapter introduces a detailed research methodology and the event study analysis of dividend announcements. The study revealed that, in general, an increase in the size of dividends positively affects the stock prices. However, financial market reacted negatively to the publication of decreased dividend payments in a more economically flavoured situation while the stocks yielded positive abnormal returns to the decrease in the size of dividends during the economic crisis. Thus, it can be concluded that the relationship between dividends and stock prices is ambiguous and depends on the state of economy.
Keywords	Dividend policy, stock prices, event study, financial markets, dividend signaling theory, agent theory

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INTRODUCTION

Profit being the main economic driver for the companies can be turned to two key destinations: it could be reinvested back into the business to be used for its future growth, or profit can be distributed to shareholders. This distribution is mainly done in the form of dividend payments or through share repurchases. Therefore, companies need to form a dividend policy in order to determine whether or not to pay dividends and how to do it. Number of researches have attempted to study dividend policy, however, the issue of what settles on corporate dividend policy still remains uncertain. Dividend policy is essential for an organization as it signalizes company's strength and provides with information regarding organization's prospect of development (Farrukh, 2017).

Potential investors and shareholders decide to invest in the company by investigating its capacity of paying dividends. Furthermore, dividend policy can be used to minimize agency costs. Since management prosperity can be determined by the wealth of its shareholders, management needs to completely comprehend dividend policy. The problem of the dividend policy setting in both developed and developing countries is widely discussed in numerous of scientific papers, public periodicals and articles. From the theoretical point of view, the researchers consider the process of dividend policy in terms of its impact on market value and its assistance for the well-being of shareholders. On top of that, the dividend policy affects all aspects of managing financial assets, liquidity, capital structure, share value and business value.

Dividend policy in Russia is quite a young direction and one of the least studied in academic circles. In the modern world investments in domestic companies with objective to obtain a dividend income is just beginning to gain popularity. Problems of evaluation and forecasting of profitability of financial assets are directly related to issues the capital access.

Especially relevant these problems become in conditions when there is a large-scale unstable situation in the financial markets, which Russian economy have been facing during the last 8 years. The problem of evaluation and forecasting returns on financial securities are even more relevant in the conditions of extracting capital from an investment, in the cases of a series of bankruptcies, and slowdown in economic growth.

The market capitalization of companies may be defined as the total market value of its shares, quoted on the market. From the point of view of a shareholder who aims to receive income by selling company shares, market capitalization is a top priority. The importance of considering the impact of dividend payments on capitalization of the company is that the choice

of the right dividend policy allows not only to maximize welfare of the shareholders of the company, but also to increase its investment attractiveness, thereby ensuring the production activities. Hence, the efficiency of the dividend policy and its impact on the market value of the company is a topical issue for their investment attractiveness companies that are willing to increase and ensure the interests of its shareholders.

The market always reacts to the economic, political and social information, the slightest fluctuations entail immediate changes to stock prices. If market capitalization responds positively to administrative, operational, financial or investment decisions, then it can be concluded that the decision is positive for the well-being of the capital owners and can be interpreted as a lever for creating value.

In this regard, the **goal** of this study is to analyze the relationship between dividend announcements and stock prices of companies listed on the Moscow Stock Exchange during the 2012–2017 period. This research seeks to explain how efficient the Russian market is regarding dividend announcements, i.e. how fast the market reacts to upcoming information on dividend payments, and to what extent market players could earn abnormal returns on the stocks they possess.

When deciding on the distribution of profits, it is very important conducting an informed dividend policy not only at the company level, but also in the aspect of the movement of market stock prices on stock exchanges. This is due to the fact that the change in stock prices serves the investor as the main information about the work of a specific issuer.

Consistent and understandable dividend policy for investors is an indispensable element of the company's strategy, focused on long-term capitalization growth. Modern companies exist in an aggressive information environment. Once a company appears on the market, it is involved in a powerful information flow, becoming one of the sources of information. News sources in this information flow can be the company itself, its competitors, authorities, etc.

The extent of importance of dividend payments also varies depending on whom is holding the shares - majority or minority shareholders. For large shareholders, the shares are important in the first place as a tool for exercising control over the company, while the dividend income is not that significant. On the contrary, minority shareholders are more interested in dividend payments. However, nowadays there is an unstable political situation and any event occurring in the world will have an impact on the value of the enterprise. This is especially true for companies that are primarily exposed to geopolitical risks. In such situations, the dividend payout factor takes the second place when calculating the company's capitalization.

In accordance with the above purpose of the research, the following **research objectives** were set and accomplished:

- Review of dividend policies which explain the market reaction to dividend announcements and aggregation of the results of these studies
- Selection of data sources, data collection and processing, usage of several data samples for the research
- Event analysis of the dividends' announcements on stock prices by analyzing the dividend theory explaining the interaction of the market value of companies and changes in dividends
- Setting and testing the hypotheses regarding identified information events that affect the returns of stock prices
- Testing the significance of obtained results on different samples in order to identify more obscure and interesting observations for managerial purposes

Thus, the **object** of this study is the dynamics of stock prices of Russian companies while the **subject** of the study is the relationship between stock price dynamics and the announcements of dividend payments.

The paper has the following structure. The first chapter contains the theoretical aspects of dividend payments, efficient market hypothesis and aggregation of the results of previous studies. The second chapter introduces a detailed research methodology, main issues encountered in analysis and their resolutions. The results and findings of the event study, theoretical contribution and managerial implications, study limitations and further research are also presented in the second chapter. In the conclusion the most important findings of the research and recommendations are summarized.

CHAPTER 1. THEORETICAL BACKGROUND

This chapter reviews the research made in the field of dividend payments affecting the dynamics of price stocks, efficiency market hypothesis and dividend signaling. This chapter also summarizes different types of dividend policies and assesses the importance of announcements of dividends payments on the dynamics of stock prices on both foreign and Russian financial markets.

Over the past several years, the Russian economy has been experiencing tense times. The accession of Russia by the Crimea caused discontent on the part of Western countries. Sanctions from Unites States of America against Russian politicians and companies were applied, followed by sanctions imposed by Canada, Australia, European countries and others. This led to a tense political and economic situation in the country. Moreover, oil prices started and continue to fall, while the oil industry accounts for more than 70% of the country's GDP, which could not but affect the economy.

In this regard, the study of the Russian financial market over the past couple of years is of a great interest. In addition, at present the analysis on the Russian stock market is continuing to grow, creating accumulation of empirical material, which can serve as a basis for conducting tests of various kinds of hypotheses. Consequently, with the emergence of an increasing number of analysts and forecasts, the question arises as to how much they are qualitative and meaningful.

Therefore, given the change in the dynamics of the situation in the country, specifically in the oil and gas industry, and the growth of empirical materials on the stock market it becomes, firstly, interesting and, secondly, accessible to assess how the dividend policy of companies affects stock prices and what are the most the significant factors of changes in the dynamics of stock prices.

1.1. Dividend policy

The basis of dividend policy was laid by a study published by J. Lintner (1956). In this study, based on the analysis of 28 firms in the United States, the author came to the conclusion that large propensity to pay dividends is owned by large enterprises, whose growth potential is significantly limited. They regularly pay dividends, and their magnitude is adjusted from year to year insignificantly. On the basis of this work a variety of dividend policies began to develop.

Consequently, five major dividend policies widely discussed in scientific circles have been formed. However, primarily two theories of dividend policy - agency and signaling dividend theories - are the most accepted by the scientific community.

Table 1 Dividend policy theories

Dividend policy theories	Authors	Essence
Dividend irrelevance theory	M. Miller and F. Modigliani (1961)	In conditions of an imperfect capital market, dividend policy plays a secondary role for the company's management, and dividends can be paid on a residual basis, only if the financial situation is favorable
Theory of the dividend payment preference	M. Gordon, J. Walter (1963)	For most investors, it is preferable to receive regular dividends than a possible increase in the company's capitalization in the future, since this reduces the risk of uncertainty
Tax-preference theory	R. Lietzenberger and K. Ramaswamy (1979)	The main attention is paid to the tax legislation by virtue of which it is more profitable to receive part of the earnings through dividends in some cases, while in others through capital gains
Dividend signaling theory	S. Ross, S. Bhattacharya (1977)	Management of companies through dividend policy sends signals to investors and stock exchanges on the status of enterprises under their control
Agency theory	M. Jensen and W. Meckling (1986)	The theory supposes conflicts of interest between different groups: management and shareholders; majority and minority shareholders; shareholders and creditors of the company

1.1.1. Dividend irrelevance theory

Five years after the article, J. Linter published the famous work of two future Nobel laureates in economics M. Miller and F. Modigliani (1961), where it was proved that in a perfect capital market, the dividend policy does not have any influence on the capitalization of the company, there is no point in paying dividends. Obviously, then, as now there is an imperfect

capital market, and in this case, Miller and Modigliani believe that companies can pay dividends on the residual principle after covering all investment costs. On the basis of this research, the theory of irrelevance of dividend policy began to develop.

Modigliani-Miller's theory of irrelevance of dividends claims that an investor can itself influence profitability, regardless of the company's dividend policy. Let us suppose that from the investor's point of view, the company pays higher dividends than needed. In this case, investor will decide to use the dividends received to buy additional shares of this company in order to maximize his cash flow. Now if we suppose that, according to the investor, the dividends paid by the company are too low, then investor could sell his shares in order to increase the cash flows. Thus, dividends are irrelevant for the investor, since he can independently generate cash flow, depending on his need for cash. Therefore, authors of the theory to assert that the company's dividend policy does not affect the behavior of investors.

Another justification for the theory of the irrelevance of dividends is the arbitration process. The logic is that, in the case of the perfection of the capital market, the payment of dividends will lead to a decrease in the market value of the share for the amount of the dividends paid. Thus, the overall profitability for the investor will not change, as any growth in dividend yield will be offset by a symmetrical decline in yield on capital gains. This allows us to assert that the dividend policy does not have any impact on the behavior of investors.

The theory of irrelevance of dividends is based on the following assumptions:

- perfect capital markets;
- no costs for emissions and no transaction costs;
- absence of taxation of companies' profits and investors' incomes;
- capital structure does not affect its weighted average cost;
- company managers and investors have the same access to all available information about the company's prospects;
- the cost of equity does not affect which share of profit will be directed to the payment of dividends;
- dividend policy does not affect the company's capital investment.

The main object of criticism in the theory of the dividend irrelevance is its initial assumptions, which could not be met in real markets. Both companies and investors are required to pay income taxes, moreover, the costs for emissions and transaction costs could be high. To

sum up, it allows critics to assert that in real life the dividend policy can influence both the value of the company's share capital and the behavior of investors.

1.1.2. Theory of the dividend payment preference

Gordon (1963) continued the scientific research of J. Linter (1956) and determined that investors, on the basis of basic expectations, would prefer current constant dividend income than possible future profits in the form of an increase in the value of the enterprise. Gordon and Walter (1963) created a classic theory of selectivity of dividends. They believe that the company's dividend and investment policies are interrelated. However, Fama and French (2001) found that the share of issuers of shares paying dividends was constantly decreasing from 66.5% to 20.8% in the USA during the period 1978 -1999. Thus, the theory of preferences of dividends in its classical form was questioned.

It is interesting to study the influence of dividends on the dynamics of market value under the reverse situation, when the tax burden on income from dividend payments is lower than on the increase in the exchange rate for most groups of investors (for example, as in Germany).

Therefore, the payment of dividends is beneficial to shareholders and no additional information on the market is announced about the growth of dividends. In the work "Dividends, Taxes, and Signaling: Evidence from Germany", Yakov Amihud & Maurizio Murgia (1997) considered the reaction of the German stock market to dividend announcements. The authors found that, despite the fundamental difference in the position of shareholders on the taxation of dividend payments, the reaction to the announcement of dividends in Germany is similar to the reaction in the United States. In addition, the average dividend payout in Germany is less than in the US, although the tax environment is motivating to the contrary.

Consequently, dividends bear a signal to the market, which is not mitigated by the tax environment. The authors included 200 companies traded on the Frankfurt Stock Exchange and showed the changes in dividends for the period from 1988 to 1992. In total, the study featured 255 "good" events, i.e. announcements on increasing dividends and 51 "bad" events. The following results were obtained: dividends in part show the same as the company's income statements. The growth of dividends raises the positive reaction of the market.

1.1.3. Tax-preference theory

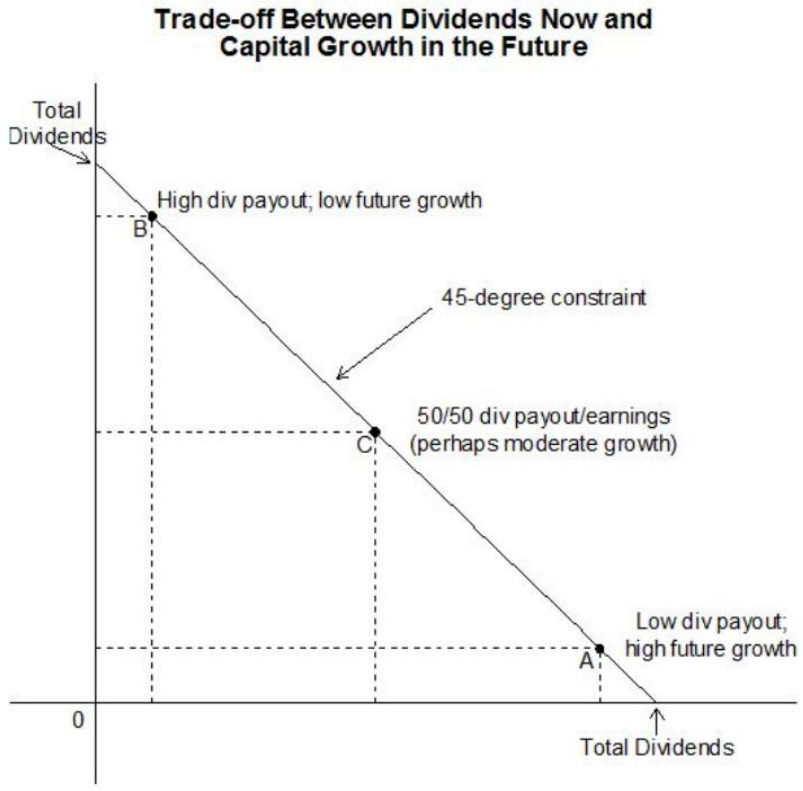
The tax-preference theory (R. Lietzenberger and K. Ramaswamy, 1979) grounds on the taxes and the time value of money. The tax preference theory conveys that due to the fact that share price appreciation is taxed more favorably than dividend yields, investors prefer long-term capital gains to the dividend income. Therefore, these investors will pay more for the shares

which reinvests back its earnings into capital-appreciating investment projects instead of the using the earnings to be paid in dividends.

To clarify, the time value of money in this context conveys that a dollar of capital gain due some time in the future could be taxed at a later date comparing to the dollar of dividends which is paid at the moment. This relationship decreases the tax-adjusted cost of the capital gain which is beyond that of the dividend. Therefore, the tax-preference theory states that investors perceive the company as a place where his money can temporarily increase tax-free which is not true with the dividends since the tax liability cannot be postponed in the moment when you the company pays you dividends.

The second rationale behind the tax preference theory is that once capital gains turn into inter-generational transfer, the shares are re-priced in the way so that capital gains are annulled for the recipients of the stock which lead to zero tax. Hence, when investors deal with the inter-generational transfer, they would again prefer long-term capital gains and would not favor the reception of dividend payments at the moment.

Three abovementioned theories could be shown the following way in the figure below.



Graph 1. Trade-off between dividends now and capital growth in the future

1.1.4. Agency theory

In the framework of signaling theory and efficient market hypothesis, such concepts as agency theory in the scientific community, corporate dividend policies and their impact of stock prices are frequently considered. Nevertheless, in the recent years, the scientists (Cozorici, 2015; Vaidean & Moza, 2015; Kim & Joen, 2015; Aamir & Shah, 2011; Mallikarjunappa & Manjunatha, 2009) have investigated whether those theories remain consistent and whether other theories (e.g. agency and behavioral thesises) offer more suitable theoretical context to explain the dynamics of share prices.

The theory (M. Jensen and W. Meckling, 1986) supposes there are conflicts of interest between different groups: management and shareholders, majority and minority shareholders, shareholders and creditors of the company.

Simultaneously, in accordance with the agency theory, one can consider manager's ambition to resolve conflicts with stockholders, as well as through dividend policy. Managers might not be apt to reduce dividends, but choose to sustain them at a certain stable level. They go as far as recoursing to external borrows to maintain the payment of devidends. As managers see it, the prices of such borrowing are lower than attainable costs, which can suffer a decrease in dividend payments (Brav et al., 2005). The dividend fee controls managers, since it is stimulated by the response of the capital market, which is mainly determined by the dividends paid on company's shares. Accordingly, that dividends obligate managers to act in the shareholder's interests. Otherwise, the outcome may be unfavorable for the people managing the company.

The study (Lang, Litzenberger, 1989; Agrawal, Jayaraman, 1994) provide evidence that dividends serve as a limitation for managers in the inefficient use of free cash flow and thus the interests of shareholders are observed. The desire of managers to reduce the level of agency conflicts is indirectly evidenced by the results of studies on the relationship between ownership structure and capital structure.

1.1.5. Dividend signaling theory

Dividends carry information to the market. It is interesting that companies which increase dividends are less susceptible to subsequent downturns of profits than those that do not change dividend policy, despite the growth of profits.

Therefore, it can be assumed that changes in dividends are a signal that the current growth in profit will be sustainable. As a result, in an imperfect market, the level of dividends begins to supply the market with information not only about the company's cash flows, but also about its investment opportunities and the available incentives to invest. The signaling theory of dividends yields contradictory conclusions. The reduction of dividends can serve as a mixed signal on the market.

On the one hand, this phenomenon can characterize the situation of not very successful operation of the company and the lack of funds to make payments to the owners (direct negative signal). On the other hand, the reduction of dividends may mean that the company has found good investment opportunities, managed to overcome the typical problem of mature companies which cannot find effective use of free cash.

A recent study by Bozos, Nikolopoulos and Ramgandhi (2011) explored the dividend signaling theory in the bull and bear markets. Investigating companies that have been listed on the London Stock Exchange from 2006 to 2010. Using a market model of event analysis, they found confirmation for the signaling theory in both bull and bear markets.

Most of the research on the reaction of market value to changes in dividends was conducted in developed markets. Less investigated are the factors of influence and market reaction to dividend payments of companies in developing countries. Another interesting study was conducted by V. Aivazian (2003), who analyzed the factors determining dividend policy in emerging markets. The aim of the research was to test the factors that traditionally form the dividend policy in the US market. The result of the study: the fundamental factors (investment opportunities, financial constraints, etc.) remain important in emerging markets. Further empirical studies have shown that the sensitivity of dividend payments of firms in emerging markets to the factors that determine dividends differs from similar indicators for the United States. The similarity is observed only on the following fundamental factors - a positive impact on dividend payments:

– ROE
– MV / BV
– negative impact of financial leverage (level of debt).

The difference between emerging markets and the United States is that the "materiality" of assets adversely affects dividend payments. This can be explained by the reduction of assets that are suitable as collateral for a bank loan, that is, in essence, the significance of financial constraints for investment decisions.

In the joint work of Grullon (2002) a new interpretation of the dividend as a signal is proposed. The authors identified the relationship between changes in dividend policy and the stages of the company's life cycle, with the key idea being that at the stage of maturity, the company is characterized by a smaller set of investment opportunities, lower profitability and risk, but the continuing high free cash flow (FCF), which motivates it to increase cash payments to investors. This explanation was called the concept of maturity (maturity hypothesis). The hypothesis was checked by the authors on a sample of 7642 companies, which for the period from 1967 to 1993 made changes in the dividend policy (6284 upwards and 1358 downwards).

At the same time, a significant requirement for inclusion in the sample was a change in dividends in the range of 12.5% - 500% of the previous level. In addition, companies that first initiated or stopped paying dividends were excluded from consideration. The analysis used both relative absolute and incremental indicators of the company such as ROA, capital expenditure ratio, payout ratio, and adjusted for industry trends. Empirical evidence has confirmed that, on average, lower ROA figures are observed after an increase in dividends.

Moreover, the authors emphasize that the firm that increases dividend payments goes from the stage of growth of ROA to the stage of decreasing this indicator in the long term (the average annual increase in ROA for 3 years before the announcement of a change in the dividend policy was 0.44%, and in the subsequent 3 the ROA index decreased by 0.53%). For companies that reduce dividend payments, there is an inverse relationship. The authors analyze cumulative risk, which is mapped into the three-factor Fama & French model (Fama & French, 1993) for market risk, size risk, and low-capitalization risk. The authors show that before the announcement of an increase in the company's dividends, the samples were characterized by a high aggregate risk, whereas after the changes the riskiness of firms declined.

At the same time, using the division of firms into quantiles by the extent of increase in dividends, the authors came to the conclusion that the larger the announced increase, the greater the risk is reduced. Multiplying the obtained risk assessment measures (beta coefficients) by the mean values of the variables, an average change in the annual risk premium for firms increasing dividends (-1%) and decreasing dividends (+ 2%) was obtained. Additional indicator of the company's maturity is changes in capital expenditure (CAPEX) and accumulated cash.

Statistics shows that firms that increase dividend payments will in future reduce capital costs and funds on accounts (for firms that reduce dividends, it is characteristic of the opposite case), confirming the hypothesis that such firms do not need investments (due to the narrowing of investment opportunities) and send free funds to pay dividends.

Nevertheless, after the black Monday of 1987, the validity of dividend signaling theory became questionable, and in subsequent years several Nobel Prize research were associated with the irrationality of the market. Chairman of the Board of Governors of the Federal Reserve Alan Greenspan introduced the concept of "Irrational exuberance", which means a reassessment of the market. A new generation of economists has focused on psychological and behavioral aspects and are convinced that the movements in the prices of financial instruments are predictable to some extent because of mental prejudices.

1.2. Efficiency market hypothesis

According to the market efficiency hypothesis, securities prices already contain all the essential information (Fama, 1991). In other words, the information must be reflected in the value of the stock completely and immediately.

Research in the field of information impact on stock price behavior began to develop actively in the mid-1960s. However, the first theoretical propositions to the effective market hypothesis were presented in 1900 by the French economist L. Bachelier, in his thesis he touched on the subject of random fluctuations in quotations of securities on the stock market. In 1965, the hypothesis of market efficiency was fully developed by the American researcher Fama (1965), known to the world as the "father of the effective market hypothesis."

It was defined that by testing the efficient market hypothesis, researchers check the extent of information reflection in the stock price of the security. This relation is of a great interest for almost all agents of financial markets - investors, issuers, managers and even regulators. Their interest can be explained by the fact that stock prices determine the distribution of income in the market. For instance, if the financial markets were perfectly efficient, then the costs related to the stock analysis would be eliminated as the analyst’s work would be unnecessary. On the contrary, in the case of incompletely perfect market, investors would bear these expenses in order to obtain private analytics, expecting to receive a higher yield than a market receives. These actions, in turn, would increase the efficiency of the market - "this is confirmed by the actual state of affairs and growth in annual spending on the analyst" (Volodin, 2012).

The efficiency of the market could be divided into three forms as it was introduced by Mallikarjunappa and Manjunatha (2009): weak, semi-strong and strong. A weak form of efficiency supposes that the market knows the history of prices and yields of securities. Semi-strong form of market efficiency implies that market participants have access to published information, including messages contained in periodicals, television and radio news, and analytical reviews in addition to statistical information on past prices and stock returns. A strong

form of market efficiency characterizes a market in which absolutely all information, including insider information, is open for all market agents.

The forms of market efficiency consistently include each other. This means that the semi-strong form of efficiency includes a weak form, and the strong form includes the semi-strong form of efficiency.

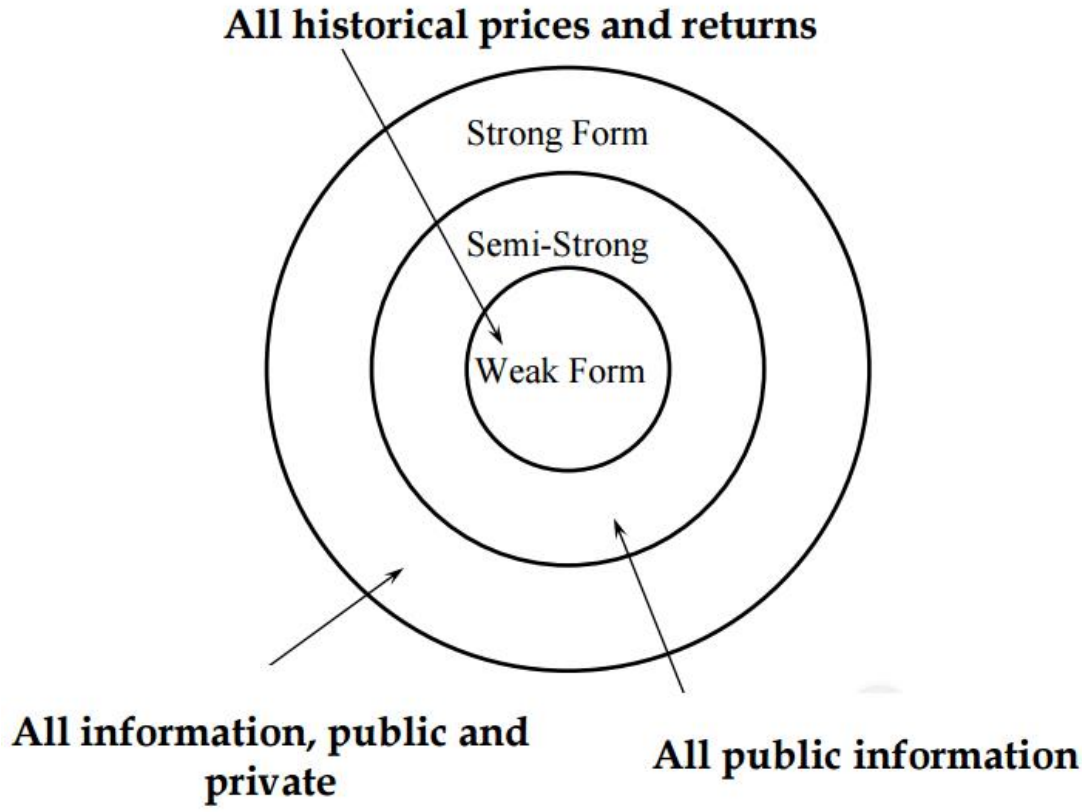


Chart 1. Three forms of the efficiency of the market

Market inefficiency can be explained by behavioral aspects. A widespread common mistake is "herd behavior". Shiller (2005) concluded that the reason for this behavior is a large cascade of information. Individuals who have been exposed to the crowd cannot make individual and independent decisions. He also compared the behavior of the crowd to the behavior of the barbarians, where impulsiveness, lack of reflection, excessive nervousness, lack of doubt - the basic behavioral aspects. Further, Bondt and Thaler (1985) concluded that investors tend to overreact to news, overestimate them; another behavioral error is the illusion of control - a tendency on the part of people to think that they can influence the outcome of uncontrolled events. Additionally, the results of Slovic, Fischhoff and Lichtenstein (1977) showed a steady trend of investors to excessive confidence.

In the article "Analysis of the Applicability of the Efficient Market Hypothesis for Modeling Price Dynamics" Volodin came to the following conclusion, analyzing the hypothesis of an effective market: the researcher concluded that markets cannot be fully effective, hence, "price fluctuations cannot be accidental, and it is quite possible to assert about the possibility of at least partial forecasting of prices for financial assets" (2012). Accordingly, it is possible to make profits by finding a market inefficiency by forecast the stock prices of securities.

Thus, in this research it is vital to evaluate how efficient the Russian financial market is and whether there is a place of making trading profits by forecast of stock prices. Then the first research question addressed in this study can be formulated in the following way.

RQ1. How efficient is the Russian financial market?

Volodin (2012) tested the state of Russian financial market for the time period before 2012. He concluded that the market has a semi-strong form of efficiency. In this regard, it can be assumed that the state of financial market has not changed significantly since 2012 and, therefore, the following hypothesis is set and will be tested further on:

H1. Russian financial market has a semi-strong form of efficiency (Volodin, 2012).

To test the hypothesis of an efficient market, a new toolbox is needed, according to several papers written almost at the same time in the 1960s: Jack Treynor (1962), William F. Sharpe (1964), John Lintner (1965), Jan Mossin (1966). According to the Markowitz (1952) paper on diversification and modern portfolio theory, the researchers proposed a new pricing model of assets - CAPM. The hypothesis of efficient markets together with the CAPM model, gave a strong impetus to the calculation of the profitability indicator, which is unique for each company (Brown and Warner, 1985).

Profilet and Frank (2013) took 15 random firms traded on the NASDAQ in the period from 2008 - 2012. Using the market model of event analysis, they found abnormal revenues before declaring dividends and concluded that the market has a semi-strong form of efficiency, and added that abnormal returns before the event could indicate the existence of insider trading and information leakage.

Dharmarathne (2013) tested the effectiveness of the market using the event analysis method analyzing 137 declarations of dividends during the period from 1999-2005 on the Sri Lanka exchange. Only a few statistically significant anomalous incomes were recorded in the 31-day window with 1% and 5% confidence level, it was concluded that the Sri Lanka Exchange observes the efficiency market hypothesis.

The opposite results were obtained by Suwanna (2012), indicating the existence of abnormal returns within two days after the payment of dividends on the Thailand Stock Exchange in the period from 2005-2010. She concluded that the Thai market does not have a semi-strong form of market efficiency.

1.3. Research in relationship between dividend payments and stock price dynamics

A particular feature of analyzing dividend distributions is that they are not associated with any new information. The announcement of the size of the dividend payment is made weeks before the distribution date. When investors receive the dividends, the size and timing of the payment merely confirm what they already know. It is important to evaluate how the announcements of the changes in dividend payments influence the stock price dynamics in order to investigate whether managers could have the stock prices increased if they change the dividend policy, and, particularly, the change in the size of dividends. Thus, the following research question is addressed in this study:

RQ2. How do the changes in the size of dividend payments affect the stock price behavior in Russia?

If the increases and decreases in the dividend payments affect the stock prices, then it is crucial to understand in which cases there is a place for this relationship and which factors could also have an impact on it. Thereby, the third research question is stated in the following way:

RQ3. Which factors should the management and shareholders of the company take into account when setting dividend payments in Russia?

Many academic papers are dedicated to the research in the relationship between dividend announcements and the dynamics of stock prices. However, these studies have conflicting results. The results of studies have been summarized in the Table 2. The general conclusion that follows from the studies below is that in most cases the relationship between the announcements of dividend payments and stock returns is ambiguous, and, thereby, are discussed further on.

Table 2. Relationship between the announcements of dividend payments and stock returns

Positive relationship	**Ambiguous relationship**	**No relationship**
Khanal A., Mishra A. (2017)	Kvamvold K., Lindset S. (2018)	Dharmarathne (2013)
Lofti T. (2017)	Aggarwal N., Mohit G. (2018)	Profilet, Frank (2013)
Ansary O., Hussien M. (2017)	Babu S., Nagendra M. (2017)	
Abbas G. (2015)	Farrukh K. et al. (2017)	
Mallikarjunappa T., Manjunatha T. (2009)	Legenzova R. et al. (2017)	
Michaely R., Thaler R., Womack K. (1995)	Berezinetz I. et al. (2016)	
Healy P., Palepu K. (1988)	Maio P., Santa-Clara P. (2015)	
Aharony J., Swary I. (1980)	Suwanna T. (2012)	
	Ahmed M., Zuguang H. (2010)	
	Teplova T. (2008)	
	Woolridge G., Ghosh C. (1985)	

From the earliest study on the topic of the relationship between dividends and stock prices of Healy & Palepu (1988), Aharony & Swary (1980), Michaely & Thaler & Womack (1995) it can be concluded that: the stock prices on average increase when companies increase dividends, and on average decrease when dividends decrease. Thus, the "good" news for the market is an announcement of an increase in dividends, while the "bad" news - a decrease. This news interpretation was adopted in our study.

More recent studies (Khanal, A., Mishra, A., 2017; Lofti, 2017; Mallikarjunappa, T., Manjunatha, T., 2009, and others) also obtained the similar results showing a significant positively associated reaction in stock prices around the event date. On average, stock prices reacted positively to the increase of stock dividends and negatively to the decrease of the size of

dividend. However, the strength of relationship between these two parameters differs from one financial market to another or from one time period to another. For instance, compared to other findings of abnormal returns (5.9%), results from the study of Khanal and Mishra (2017) show small abnormal returns (about 1.81%) attributable to stock dividend announcements that are cumulative of the announcement day and up to 3-day post-announcement days.

Another interesting research have been made by Ansary, O., Hussien, M. (2017). They examined the effect of two types of corporate actions, “Stock Split” and “Stock Dividends”, on the shares’ prices, liquidity changes, and price volatility; and to investigate the efficiency of the Egyptian stock market in response to the announcement of the corporate actions. The analysis concluded that the announcement of both of stock split and stock dividend has a positive impact on stock prices.

In the study conducted by Abbas, G. (2015), one interesting aspect of the stock price behavior was noticed which shows that the only 5 out of 41 days in the considered window showed statistically significant. This may be a result of other factors affecting investors’ behavior such as economic, political and others. In general, a quick and positive response of stock prices to dividend announcement on the event day have been concluded. This evidences that dividend information reflects on stock prices. The average abnormal return fluctuates surrounding zero in alternating days giving uncertain indication of investors gain or loss both in the pre and post dividend announcement days.

An unambiguous view of the positive reaction of the market to good news is not always fulfilled. Dividends bear a dual signal, which is often much deeper than a simplified view of the benefits of growth in current payments as a signal of a future increase in profits. The change in dividends gives the market information not only about the company's projected cash flows, but also about its investment opportunities, as well as the motives for investing, which is partly determined by the company's maturity stage in the market. If the company knows that it can effectively use the funds, investing it in new projects, sending a signal through lowering dividends, then it can not only not scare off investors, but, on the contrary, attract them with the prospect of getting more revenue.

An interesting study demonstrating this more complex dividend signal is the work of Woolridge and Ghosh (1985) in which they showed that the share price would at least not react negatively to the announcement of a decrease in dividends if the firm could provide investors with information that these unpaid flows will really go to finance a profitable project. In another key work on the topic under consideration, Maio and Santa-Clara (2015) found that for

companies with good investment opportunities, the decline in the share price is statistically insignificant with a decrease in the dividends, and, on the contrary, for companies with poor investment prospects the decline in the share price is statistically significant with a decrease in the dividends. Babu, S., Nagendra M. (2017) found selection of samples influence on dividend announcement impact on abnormal returns. If the random sample includes only either positive or negative cumulative return stocks that may impact the abnormal return of stocks, it means some stocks abnormal returns may get influence by dividend announcement and some stocks won't get influence by dividend announcement.

Large-cap stocks displayed the presence of significant abnormal returns in the pre-event period, whereas the mid-cap stocks displayed the same in the post-event period, according to the study of Aggarwal, N. and Mohit, G. (2018). The results of the small-cap stocks mirrored that of large-cap stocks but they are the only ones in which cumulative average abnormal returns were found to be significantly displaying the lagged response toward the event. The decrease in dividend rate by 20 percent or more did not result in average abnormal returns in either pre-event or post-event window.

The study of Ahmed, M., Zuguang, H. (2010) also confirmed an ambiguous relationship between the announcements of dividend payments and stock returns. They have analyzed the effect of dividend announcement on stock price in Shanghai Stock Exchange for the stocks listed in SSE 180 index during the period from January 2005 and December 2009. They have found that on the day of dividend increase announcement, stock prices increase and investors gain abnormal returns. However, as for the effect of dividend decrease on the announcement day, market does not experience any negative abnormal returns implying that investors in Shanghai Stock Exchange do not regard dividend decrease as unfavorable information. Moreover, significantly large dividend increase announcement has much higher effect on the value of abnormal returns implying that size of the dividend increase is an important consideration to the investors.

There is also a spillover effect to other stocks that do not pay dividends as it was confirmed by Kvamvold and Lindset (2018). They claim that this spillover effect is a result of investors reinvesting dividends in broad benchmark portfolios. The trading volume is higher on the payment day for both dividend payers and non-dividend payers. Furthermore, they have found that investors to a large extent try to reinvest dividends three days before their distribution. The effects that dividend flows have on returns appear to be temporary. Thus, they also provide evidence supporting temporary demand-driven price pressure, referred to as the price pressure hypothesis in the literature.

Another study (Berezinetz et al, 2016) is conducted for forty Russian companies during the 2010-2014 years. It is assumed that the expectations of market participants regarding the magnitude of the company's forthcoming dividend payments are formed by forecasts of analysts. As a proxy for dividend "surprise" the deviation is used, the deviation of the value of the actually paid dividend from the consensus forecast of analysts regarding these payments. The analysis showed that, on average, the Russian market reacted negatively to both positive and negative dividend "surprises". Thus, the work confirms the conclusions of existing Russian market research conducted using the "naive" model of market reaction to dividend announcements of companies. Results were discussed from the point of view of the information efficiency of the market, investors' expectations and the specifics of their behavior, the state of the Russian market in the period under investigation.

To sum up, the relationship between dividend payments and stock prices could differ depending on multiple factors such as the form of market efficiency, the state of the economy development, investor's preferences and risk sentiment, dividend's size, thus, confirming that on different financial markets and at different time periods financial agents react to the dividend announcements in many ways. In this regard, the following hypotheses regarding the relationship between publication of dividend payments and price behavior needed to be tested for the Russian market for all cases of dividend changes and not only for the cases of dividend surprises as it was studied by Berezinetz et al. (2016):

H2a. Positive announcements of dividend payments ("good" news) have a positive impact on the stock price dynamics of Russian companies (Ansary O., Hussien M., 2017; Abbas G., 2015; Mallikarjunappa T., Manjunatha T., 2009).

The reaction of the market in the opposite case (negative dividend announcements) should also be tested.

H2b. Negative announcements of dividend payments ("bad" news) have a negative impact on the stock price dynamics of Russian companies (Ansary O., Hussien M., 2017; Abbas G., 2015; Mallikarjunappa T., Manjunatha T., 2009).

The study (Teplova, 2008) aims at studying the relationship between dividend payments and stock prices of Oil & Gas companies. The results of the research of the reaction of the stock market on 118 announcements of Russian companies on the change in the value of dividends per share for the period from 1999 to 2006 are shown. The hypothesis which was tested is the announcement of an increase in dividends will not be perceived as a good signal for the firm, if it has the potential for more effective investment of earned funds. Since the sample includes

rapidly growing Russian companies throughout the period under review, they assume the negative reaction of the market to "good" news (increase in dividends). However, they divided the sample into two:

- companies with high investment prospects, but significant financial constraints (where investment costs were sensitive to the operating cash flow received);
- companies with high cash inflows, with high return on invested capital and opportunities to raise capital from the external market.

The initial survey involved large Russian companies that paid dividends in the 1999-2006 period and quoted shares on both the RTS exchange and at the same time on the western stock exchanges of the New York Stock Exchange (NYSE) or the London Stock Exchange (LSE). Thus, the second hypothesis which was tested is the difference in reactions to announcements regarding the change in dividends on the stock quotes of various exchanges. Data on common shares were taken for the Russian market, and for depositary receipts (ADR, GDR) for the western market.

The hypothesis of the importance of investment opportunities and excess cash flows is tested through industry comparisons and the allocation of time subperiods. It is shown that Russian and foreign investors negatively perceive the information on the increase in dividends for Russian companies with the availability of investment opportunities and financial constraints. For companies with significant cash receipts and potential agency conflict (oil and gas sector in Russia), investors are positive to the increase in the size of dividends. According to the time period or, in other words, the state of economy, the relationship between prices and dividends changes (Teplova, 2008).

Therefore, this study also aims to test the hypothesis for the Russian market during two time periods with a more macroeconomic situation and less flavored macroeconomic situation:

H3. The state of economy influences the relationship between announcements of dividend payments and price behavior of Russian companies (Teplova, 2008).

The abovementioned hypothesis is also tested in the studies of Legenzova R. et al. (2017) and Aggarwal N., Mohit G. (2018). In the study (Legenzova R. et al., 2017), the authors have found that during the crises the relationship between stock price dynamics and dividend announcements is stronger for Baltic market. The similar results were gained in the work of Aggarwal N., Mohit G. (2018) for the Indian market.

1.4. Research gap

In the field of corporate news affecting stock prices there are a lot of foreign studies in financial literature. In particular, a big number of papers are devoted to the analysis of the information significance of analytical reports with recommendations on stock price dynamics, mergers and acquisitions affecting share prices after the announcements, macroeconomics announcements such as unemployment levels and inflation in the country, news on big changes in government policies.

There are numerous Russian studies on the analysis of dividend effects. The most recent have the following findings. Bogataya and Evstafyeva (2009) believe that when building their dividend policy, companies take into account the level of dividend payments of competitors' firms. Ivashkovskaya and Kukina (2009) refuted the hypothesis that dividends paid negatively affect the economic profit of Russian enterprises. Stepanova and Kuzmin (2011) confirmed the hypothesis that increasing the share of minority shareholders and management in the company positively affects the operational efficiency of Russian enterprises. However, these academic papers do not study the relationship between dividend announcements and the stock prices.

However, if to look particularly on the research in relationship between dividend payments and stocks, then one can be surprised by the low level of scientific research in this area comparing to other event studies. There are only few studies investigating the relationship between dividend payments and dynamics of share prices in developing countries.

To sum up, there is only one research conducted for whole Russian market which analyzes the relationship between dividends and stock market (Berezinetz et al., 2016). However, this research is specified for the dividend surprises – those information events regarding dividends that do not reflect the expectations formed by analyst' recommendations. Another study of Russian market (Teplova, 2008) was conducted only for an Oil & Gas segment. In this study the research gap in the field of relationship between dividend payments and stock price behavior will be filled for the Russian market.

Thus, **the research gap** in the field of the dividend announcements and stock prices exists due to the narrow focus of the current research for Russian financial market.

To fill the research gap the research questions, as they have already been mentioned earlier, have been formulated in the following way:

RQ1. How efficient is the Russian financial market?

RQ2. How do the changes in the size of dividend payments affect the stock price behavior in Russia?

RQ3. Which factors should the management and shareholders of the company take into account when setting dividend payments in Russia?

Consequently, in order to provide answers to the abovementioned research questions, the hypotheses regarding the relationship between publication of dividend payments and price behavior and the efficiency of Russian financial market have been tested in this study. Each of hypotheses is tested by applying methods of event study analysis.

CHAPTER 2. METHODOLOGY AND EMPIRICAL STUDY

This chapter discusses the process of data collection and its processing, and also discusses the main problems encountered in the study event analysis, including clustering of events and the release of related news. Then the chapter presents the ways to solve these problems. It also provides descriptive statistics on the samples accessed, the results of an empirical study based on the methodology of event study and a detailed analysis of the assessment of the significance of the results of this study.

2.1. Event analysis

One of the main instruments for testing financial decisions is event study analysis. Event studies are one of the mainstays of empirical corporate finance research. The purpose of an event study is to test what Fama (1970) called semi-strong efficiency, that markets react rationally to the release of public information. The essence of the method is to track the reaction of the stock market to certain events caused by managerial decisions or external factors. In the following areas of corporate finance, the method has proved its worth:

- market assessment of decisions regarding external growth of companies (mergers and acquisitions)
- the impact on the market value of the company's development strategy through diversification or focus (development of key competencies)
- implementation of the focus strategy through the sale of non-core assets
- signal effects of financial performance (announcements of the dynamics of profit, operating or net cash flow)
- financial decisions, for example, decisions on attracting public debt or equity capital, a decision on private capital raising, changes in dividends per share or dividend policy
- decisions on the beginning of public trading in shares (IPO), on entering foreign exchanges, on the placement of depositary receipts (ADR, GDR)
- the impact on the market value of changes in the macroeconomic environment, legislative developments in the market

The empirical studies based on the method of event analysis have a long history. The first work belongs to J. Dolley (1933), which shows the influence of stock splits on the market capitalization of the company. The sample consisted of 95 events (crushing) on a time interval from 1921 to 1931. J. Dolley found that the stock price in response to the announcement of fragmentation increased in 57 cases, and fell only in 26.

Today, most of the research is based on an algorithm that was developed in the late 60's in the works of R. Ball & Ph. Brown (1968), and E. Fama (1969). Ball and Brown (1968) analyzed the information value of announcements about the company's financial results (profit) on its market valuation. In the joint work of Eugene Fama (Fama et al, 1969), the influence on the market value of the company of the facts of stock collapse. At the same time, the effects were differentiated for situations of simultaneous increase in dividends.

In recent years, many modifications of the event study have been proposed in the framework of the developed algorithm Ball & Brown (1968), Fama (1969). The need for adjustments to algorithms is associated with an attempt to apply the method in imperfect markets, which are the markets with poor information efficiency and low liquidity. For example, modifications allow to take into account the presence in the sample of companies with small capitalization or low liquidity of shares.

A number of modifications allow testing of rather complex hypotheses, delineating the influence of a number of factors in the observed market reaction. For example, Jay Ritter (1991) applied the event study method to analyze the operation of an IPO (initial public offering of equity). The peculiarity of his model is the absence of a period of observation of the capital market for the company before the analyzed event, i.e. the impossibility of calculating the "normal yield" of stocks from the available past data.

Leveling the influence of secondary factors on the dynamics of shares

In previous studies, there was often the problem of the accuracy of determining the impact of an event on the dynamics of a security. For example, the impact of analytical recommendations is often significantly overestimated due to the fact that the reports were issued in the same period as important corporate news, for example, financial statements.

Accordingly, if we consider only the recommendations of analysts, excluding other important events from attention, while for a long period of time, then the reliability of the results will be significantly reduced. In their article, Jiang and Kim (2010) used a strong and sharp increase in the stock price to level the influence of secondary news as a sign that the information event took place. Then they assessed the reaction of investors only to those changes in recommendations that were issued immediately after such abnormal leaps.

A similar approach was applied by the researchers Park and Pincus (2000). It consisted in determining jumps with the help of econometrics and attributing these jumps to information events, which really influenced the movement of quotations. In order to eliminate this type of problem in this study, first, the news of the companies was studied in the aggregate, and

secondly, a not very long window of events was selected, 5 days before and after the announcement of the news, in order to reduce the likelihood of one corporate event affecting the other.

2.2. Research strategy

The research is conducted in accordance with the philosophy of positivism, which asserts that the surrounding reality can be studied through empirical research. Then the deductive method of investigation is applied, so the hypothesis is built on the existing theory, then the data is analyzed and finally the hypotheses are confirmed or disproved. On the contrary, the inductive approach begins with the study of data, and then the formulation of the theory. Based on previous studies, a quantitative method of data analysis was selected for the conduct and interpretation of the study. The methods that is used in the research is event study analysis.

The analysis is conducted in two stages. In the first stage of the research, Russian companies which pay dividends were identified. As the payments of dividends is not necessary for firms, the first part of the analysis evaluated how many companies listed on the Moscow stock exchange paid dividends and publicly disclosed such information. In the second stage of the analysis the evaluation of dividend announcement events that have an impact on stock quotations have been made. It employed the mean adjusted return model event study methodology. The mean average adjusted return model of the event study methodology reposes on the analysis of share price dynamics during the several time intervals which are: pre-announcement, announcement and post-announcement periods.

2.3. Data collection

All announcements of dividend payments in cash were considered. As the date of the event, the date of the meeting of the Board of Directors was adopted, at which the dividend amount recommended for payment is declared. This is explained by the fact that it is on the day of the board meeting that real information on recommended dividends for shares becomes available to the market. The dates of meetings of the boards of directors (and the corresponding dividend announcements) were obtained from the database of Thomson Reuters Eikon.

This database contains almost all the kind of company’s information news in different countries, and Russia is no exception. Stock prices were also downloaded from Thomson Reuters Eikon database. Since it provides a wide range of information, opening up a more global picture to the reader, it allows to determine which news influenced the jump in the abnormal return of

the stock. Most publications occur in real time, which is another advantage of this database. The disadvantages of the database include the following:

- incompleteness, that is not all corporate news of the company can be found in the database of Thomson Reuters Eikon

- the inconvenience of downloading data, most information regarding the dates of dividend payments could not be downloaded automatically

2.4. Research model

Firstly, to conduct event study analysis the estimation window and event window must be defined properly to preserve the high rate of accuracy. After defining the most optimal time intervals in the methodology, the calculations of stock's returns, abnormal returns and cumulative returns must be conducted. Finally, the results are tested to be statistically significant using t-test statistics.

1. Estimation window and event window

One of the most crucial factors in the event study is defining the most optimal time period of observations. Firstly, the estimation period needed to be defined (L_1 on the Chart 2). The estimation window is the time period under which the stock prices of the company are analyzed. For the purpose of this study, the length of estimation window is 120 days which is the most common figure for the estimation period (Pogozheva, 2013). When analyzing events that have more long-term effects such as mergers & acquisitions deals, a longer time period is taken. However, the dividend announcements have a short-term impact on stock prices which justifies the chosen estimation period of 120 days.

Secondly, the 11-day event window (L_2 = 11 days) have been chosen, the time interval during which information messages were observed: 5 days before a dividend announcement event and 5 days after the dividend announcement event. Several days before the event is important to consider, since if the information message is forecasted, then part of the abnormal return of the security can begin to be realized even before the publication of the event. Several days after the announcement is important to analyze, because the market reaction to the event is often not instantaneous, in addition, this period is interesting for understanding the speed of processing information and, consequently, for the testing of the market efficiency. In the case where the abnormal profitability is higher or lower than zero, there is a possibility of creating a profitable trading strategy if transaction costs were not incurred, and this contradicts the hypothesis of an effective market.

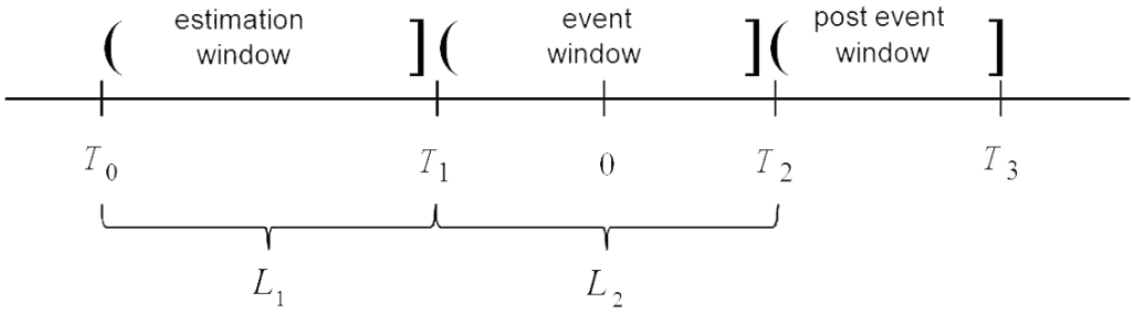


Chart 2. Time intervals in event analysis

Often a longer event window is used in the cases when the study aims to analyze the impact of the most significant and rare events for the company (for instance, merger and acquisition) because their effects can be manifested for more than one year. When analyzing events that have more short-term effects, authors generally use the 21-day event window (Irum, Rafique, Hassan, 2012) or shorter, for example 11 days or even 3 days (Andres et al., 2013).

However, in this study, it was decided to consider a shorter period of time. Firstly, because this research does not aim to determine how the news influenced the share price over a long period. The objective of this research is to identify how the stock price changes at the moment of the event. Secondly, over a longer time interval, the probability of correctly correlating news to a jump in abnormal returns is reduced, as the influence of other information events that arise in the industry or in the company is increased. Therefore, the 11-day event window for the purposes of this study is the most optimal, thereby reducing information "noise".

2. Analysis of the stock returns

Stock return. The stock return can be defined as the closing price on a given day divided by the closing price for the previous day minus one. Another way to determine the stock return is through a lognormal distribution. It is the lognormal distribution that has been used in this paper for more comparable values of the returns of different companies, since the values of the shares of companies may differ from each other.

It is also important to note that only trading days of the exchange were used, and not calendar days. As a result, the following formula was used to estimate stock return:

$$R_{i,t} = \ln \frac{P_{i,t}}{P_{i,t-1}},$$

where P_{it} – closing price per security i per day t, a P_{it-1}– the closing price for the security i on the previous day t-1.

Expected returns. Next, for each stock on each of the days, the average expected return was calculated. Expected return is a security yield in the case of absence of an event such as dividend publication. The expected return is determined for the estimation window followed by the event window. In the formula below, the abnormal return is a random variable:

$$E\left[R_{i,t}\right] = R_{i,t} - \varepsilon,$$

where $E\left[R_{i,t}\right]$ are expected returns of security i per day t, $R_{i,t}$ – returns of security i per day t and ε – random variable.

Accordingly, the abnormal return in the event analysis is the difference that arises between the yield at the occurrence of an event and the expected yield that would arise if the event did not occur.

Next, the mean adjusted return model was used to estimate the expected return. In the event analysis, it is also possible to use more complex models, for example, market models, three-factor models of Fama-French or even a four-factor model. All of the above models may differ in the accuracy, bias in estimating the abnormal return.

The mean adjusted return model is one of the most used models in the event analysis. For example, Brown and Warner (1985), in their work on the event-based analysis method "Using daily stock returns: The case of event studies", found the following result: both the mean adjusted return model and the market model can reasonably be used in the context of event analysis, since in practice, the results of these models only slightly differ from the results obtained during the use of more complex models. In addition, the model with the average is not very applicable to data with a wide window of events, because the variance of returns for a few days is not high enough, and in this study, a narrow window of events makes it possible to use this model.

It is assumed that in a mean adjusted return model the stock expected return is determined based on the selected estimation window period, which takes place exactly before the event window. In this study the estimation window of 120 days is used. Hence, the expected return was calculated using the following formula.

$$E\left[R_{i,t}\right] = \frac{1}{120}\sum_{-126}^{-6} R_{i,t}$$

where $E\left[R_{i,t}\right]$ are expected returns of security i per day t, $R_{i,t}$ – returns of security i per day t.

Abnormal return. After estimating the expected return, the abnormal return must be calculated. As it was mentioned earlier, it is a random variable that remains above the expected yield. The indicator of abnormal return in the event analysis is the influence of the information message on the change of the stock dynamics. The abnormal return is calculated by the formula presented below:

$$\varepsilon = AR_{i,t} = R_{i,t} - E\left[R_{i,t}\right],$$

where $AR_{i,t}$ are abnormal returns of security i per day t, $E\left[R_{i,t}\right]$ are expected returns of security i per day t, and $R_{i,t}$ – returns of security i per day t.

Cumulative abnormal return. After the calculation of abnormal returns, the cumulative abnormal returns (CAR) is calculated for each event for the entire period of the event window, which is the sum of the abnormal returns for a given period:

$$CAR_i(t_1, t_2) = \sum_{t=t1}^{t2} AR_{i,t},$$

where $CAR_{i,t}$ are cumulative abnormal returns of security i per day t and $AR_{i,t}$ are abnormal returns of security i per day t.

The cumulative abnormal returns indicate whether the event led to a change in the market return of the company's shares. In order to draw conclusions on the full sample of data, the next step is to calculate the average values of abnormal returns (AAR) and cumulative average abnormal returns (CAAR) for each day of the event window:

$$AAR_t = \frac{1}{N}\sum_{i=1}^{N} AR_{i,t},$$

$$CAAR(t_1, t_2) = \sum_{t=t1}^{t2} AAR_t,$$

where AAR_t is the average abnormal return for all emissions on day t, and $CAAR(t_1, t_2)$ is the average cumulative abnormal return for all emissions over a period of time $[t_1, t_2]$.

Testing hypothesis. The final stage of the event analysis is to test the hypotheses.

This study aims to test several hypotheses, each of which is tested by applying the described methods of event study analysis. With the help of event analysis, the following hypothesis were evaluated:

H1. Russian financial market has a semi-strong form of efficiency (Volodin, 2012).

To test this hypothesis, the speed of market reaction to the dividend announcements is defined using the calculation of average abnormal return and cumulative average abnormal return of the stocks.

H2a. Positive announcements of dividend payments ("good" news) have a positive impact on the stock price dynamics of Russian companies (Ansary O., Hussien M., 2017; Abbas G., 2015; Mallikarjunappa T., Manjunatha T., 2009).

To test the hypothesis 2a, the average abnormal return and cumulative average abnormal return are calculated for the subset of good news in the final sample during the period from 2012 till 2018.

H2b. Negative announcements of dividend payments ("bad" news) have a negative impact on the stock price dynamics of Russian companies (Ansary O., Hussien M., 2017; Abbas G., 2015; Mallikarjunappa T., Manjunatha T., 2009).

To test this hypothesis, the average abnormal return and cumulative average abnormal return are calculated for the subset of bad news in the final sample during the period from 2012 till 2018.

H3. The state of economy influences the relationship between announcements of dividend payments and price behavior of Russian companies (Teplova, 2008).

To test the final hypothesis, the average abnormal return and cumulative average abnormal return were compared for each of the subsets of good and bad news in the final sample separately for the 2012-2013 years and 2014-2016 years.

3. **Statistical significance**

In the final stage of event study analysis, the results are needed to be tested for being statistically significant. Statistically significant results are those that are understood as not likely to have occurred purely by chance and thereby have other underlying causes for their occurrence.

The significance level for a study is chosen before data collection, and typically set to 5%. To test the significance, the t-test statistics is used.

Every test of significance begins with a null hypothesis H0 which represents a theory that has been put forward, either because it is believed to be true or because it is to be used as a basis for an argument, but it has not been proved.

In this case, the null hypothesis states that the average abnormal returns equal to zero at time t0 - the day of dividend announcement, so that information event does not affect the average yield. The same is tested for the cumulative average abnormal returns.

$$H_0: AAR_t = 0$$

$$H_0: CAAR_t = 0$$

where AAR_t is the average abnormal return for all emissions on day t, and $CAAR(t_1, t_2)$ is the average cumulative abnormal return for all emissions over a period of time $[t_1, t_2]$.

In addition, the question is whether the average abnormal return is different from zero in the period before and after the event. The analysis of the period before the event is important because if the event could be forecasted, then the part of abnormal return must be realized before the event occurs. The analysis of the period after the event is of interest for testing the market efficiency, since the determination of the speed of processing the information received by the market is an empirical question. If the abnormal return after the event systematically differs from zero, this contradicts the hypothesis of an effective market, since it assumes the possibility of creating a profitable trading strategy in the absence of transaction costs.

A null hypothesis is rejected if the critical value of the test statistic exceeds a certain level corresponding to 5% level of significance. The test statistic is a random variable, since the abnormal return is measured with an error. The presence of error is determined by two factors. Firstly, in the case of inaccurate assumptions regarding normal profitability in the absence of news. Secondly, the actual returns of individual companies on the date of the event depend on

the set of other factors, so that this component of the abnormal return is not averaged to zero in the cross-sectional analysis. The level of statistical significance of the results obtained is determined by the following calculation of the t-test statistics:

$$t_{test\ AR} = \frac{\frac{1}{N}\sum_{t=1}^{N} AR_{i,t}}{\sqrt{\frac{1}{N\ (N-1)}\sum_{t=1}^{N}(AR_{i,t} - \sum_{t=1}^{N}\frac{AR_{i,t}}{N})^2}}$$

Since there is no information at what specific moment the information regarding dividend announcements has spread, it is necessary to check the significance of the average cumulative abnormal returns on certain time intervals. To do this, we also calculate t-statistics for the average cumulative abnormal returns:

$$t = \frac{CAAR(t_1,t_2)}{s(AAR_t)\sqrt{L}},$$

where L is the number of days during which average anomalous returns are accumulated in CAAR (t_1, t_2) and S is the standard deviation which is calculated in the following way:

$$S = \sqrt{\frac{1}{N\ (N-1)}\sum_{t=1}^{N}(CAR_{i,t} - \sum_{t=1}^{N}\frac{CAR_{i,t}}{N})^2}$$

In addition, by analogy with the study of the entire sample, we apply the event analysis separately to each year of the period under review to assess whether there is a relationship between the year of dividend announcements and the reaction of the company's stock prices to them.

The share price should decrease for the entire size of dividends on the day of the announcement in perfectly efficient market. Thus, abnormal revenues can be obtained only when selling immediately after an event affecting the stock, for example, declaring dividends, because waiting for longer period will eventually lead to the decrease of share prices.

Therefore, if abnormal revenues can be obtained from the sale of shares one day after the announcement of dividends, this will mean that the market efficiency is in a strong form and

stock prices fell shortly after 1 day after the announcement of dividends. However, the market may be less effective.

Since the effective market hypothesis is a simplistic theoretical approach based on fundamental assumptions that may be violated - as shown in previous studies (Borges, 2009, Mallikarjunappa & Manjunatha, 2009, Vazakidis & Athianos, 2010), it is important to assume that it is possible to obtain abnormal returns, and the width of the window of events used in the study helps to present these expectations of possible market inefficiencies. Therefore, the more inefficient the market, the wider the event window that should be used.

Most importantly, in the framework of such testing investment significance, researchers are faced with a multitude of methodological problems that have not been uniquely solved by the scientific community yet. Conclusions regarding the effectiveness of the use of trade strategies which use the recommendations of analysts vary considerably depending on many factors. These include the market in which the analysis is carried out, which time interval is considered, whether the influence of transaction costs is taken into account, how correctly the question of the correlation of data is presented, and so on. It is also difficult to draw definitive conclusions, because the change in the market situation leads to a change in the effectiveness of the trading strategy.

The use of event analysis gives reliable results on short-term time intervals in the absence of both serious clustering of data and the release of significant related news. Therefore, most researchers are inclined to believe that the revision of the analytical recommendations is of informational importance for investors (Jegadeesh, Kim, 2006; Brav, Lehavy, 2003). However, questions regarding the impact of the revisions on the stock market and the impact of countries on new differences remain open, since the vast majority of studies were conducted on the basis of data on the US stock market.

In order to be able to consider the significance of the results separately for ups and downs, the entire sample was split into two parts for each of the exchanges in question. As a "quotation" the closing price for the issuer's securities was used for each specific day (trading session). In rare cases, data on quotes were absent - in such cases, the average of the closing price for the previous and for the subsequent trading session was taken to supplement the data.

2.5. Sample description

Data on the closing price of securities were collected for the period from January 2012 till January 2018 from Thomson Reuters data base. The study examined the shares and dividend payments of all companies listed in the Moscow Stock Exchange. However, only 56 companies

were included in the final sample. The reasons for the exclusion from the sample were the following:

- The company did not pay dividends
- The dividend payments were too small to be considered as significant
- The company did not change the amount of dividend payments throughout the period under review

Totally, according to the data on 56 companies, 329 dividend announcements were included in the final sample.

After completing the sample creation, it is necessary to divide the above news events on dividend payments presented in the sample into two categories: "good news" and "bad news" - announcements that deliver either positive or negative signals to the market. The good news is those when the dividend payments were increased by the company, while the news when the company decreases the dividend payments are considered as bad news.

The rationale for the division is that positive and negative signals result in contrary price stock behavior. Hence, this multidirectionality should be eliminated by dividing sample into two subsets with “good” and “bad” announcements.

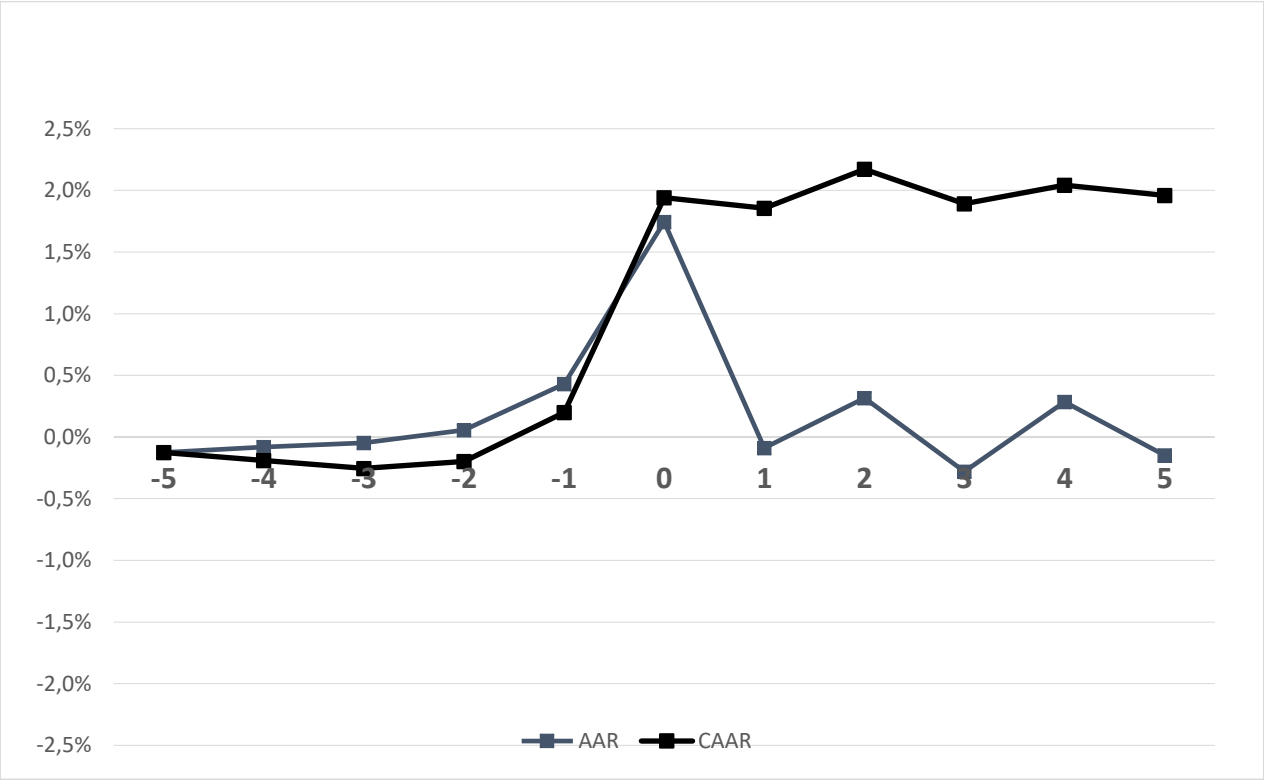
Among the 329 information messages included in the final sample, 192 positive announcements (58%) and 137 negative announcements (42%) were identified.

In the case when the news release on the positive change in dividend payments affects the market, it can be expected that the value of the average abnormal return on the day of increase will be positive and statistically significantly different from zero. In the case of the public announcement with decreased dividend payments, the value of the average abnormal return should be negative and statistically different from zero.

2.6. Research results

Hypothesis 2a which conveys that positive announcements of dividend payments (“good” news) have a positive impact on the stock price dynamics of Russian companies is approved. As shown in the graph below, the average abnormal return as well as cumulative average abnormal return is different from zero. The null hypotheses are rejected at the significance level of 95%.

$$H_0: AAR_t = 0.$$
$$H_0: CAAR_t = 0.$$



Graph 2. AAR and CAA for "good" announcements during the period of 2012-2017

It can be also concluded that the market reacts to the dividend announcements even before the day of news publication. The average abnormal return equals to 0,4% one day before the release of new dividend payments have been made.

Thus, Hypothesis 1 which states that Russian financial market has a semi-strong form of efficiency is confirmed. The share price should decrease for the entire dividend size on the day of announcement in a perfectly efficient market. Hence, abnormal returns can be obtained only when selling immediately after an event affecting the stock. However, we can conclude from the graph 2 that there was an opportunity to profit from buying the shares even one day before the announcement.

There could be several reasons for this:

- Insight trading
- Positive expectations of investors before the day of the meeting of the board of directors are formed due to the analytics.

On the date of announcement AAR and CAAR are the highest in the assessed event window, being 1,7% and 1,9% respectively. The next day after announcement the abnormal returns are decreasing. In the table presented below, which shows the data for the positive dividend announcements, the cumulative average abnormal returns equal to 1,9%.

However, there are also cases when the stock prices demonstrate negative abnormal returns despite the increase in the amount of dividend payments. This price behavior can be explained by the fact that the increase in dividend payments actually can be considered as a bad signal for the market. Market players could negatively react to the rise in the dividend's size if they find it more appealing for the company to invest free cash flows into projects rather than to pay out money in a form of dividends. Thus, the companies that do have big investment opportunities are better off if they have small dividend payments.

The hypothesis 2b stating that negative announcements of dividend payments ("bad" news) have a negative impact on the stock price dynamics of Russian companies cannot be confirmed.

Table 3. AAR and CAAR for positive dividend announcements

Day	AAR	CAAR	t-stat (AAR)	t-stat (CAAR)
-5	-0,1%	-0,1%	0,4076	0,6850
-4	-0,1%	-0,2%	0,5034	0,8632
-3	0,0%	-0,3%	-0,1095	-0,3724
-2	0,1%	-0,2%	0,4732	0,8743
-1	0,4%	0,2%	0,5831	0,3629
0	1,7%	1,9%	1,8253	1,7835
1	-0,1%	1,9%	1,2933	1,4876
2	0,3%	2,2%	-0,9065	1,8043
3	-0,3%	1,9%	0,1053	1,0482
4	0,3%	2,0%	-0,3244	0,3814
5	-0,1%	2,0%	-1,8062	-0,9742

As shown on the table 4 below, which shows the data for the negative dividend announcements, the average abnormal returns take positive values (for instance, AAR=0,3% and CAAR=0,5% at t = 0). In the period after the announcement, the average abnormal returns have a certain positive trend while the cumulative abnormal returns in average are positive as well. Some of the stock prices do not reveal reductions in quotations, and even demonstrate high positive abnormal returns. One of the reasons of this price behavior is the fact that the decrease

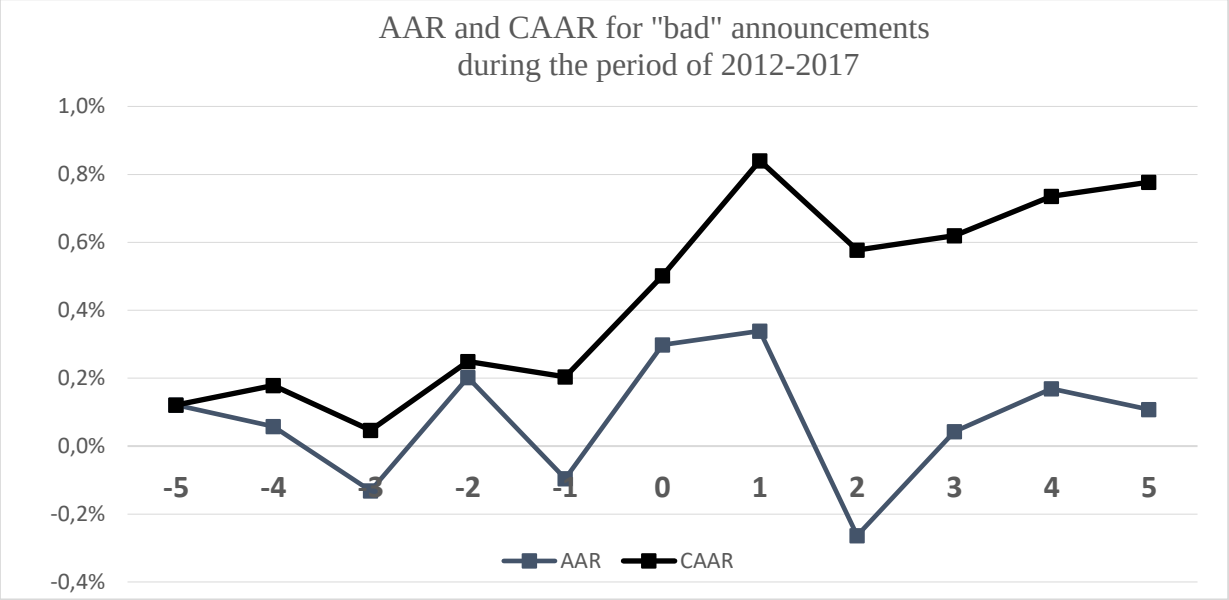
in dividend payments actually can be considered as a good signal for the market. As it was mentioned earlier and in previous studies, market players could positively react to such a decrease in dividends if they find it more appealing for the company to invest free cash flows into projects rather than to pay out money in a form of dividends.

However, as can be seen from the low values of t-statistics, during the entire event window all of the t-tests rejected the hypothesis of the significance of the average abnormal returns and cumulative average abnormal returns.

Table 4. AAR and CAAR for negative dividend announcements

Day	AAR	CAAR	t-stat (AAR)	t-stat (CAAR)
-5	0,1%	0,1%	0,9732	0,9098
-4	0,1%	0,2%	0,0032	0,2245
-3	-0,1%	0,0%	-0,9375	-0,7982
-2	0,2%	0,2%	-0,4738	0,0232
-1	-0,1%	0,2%	0,0443	0,3629
0	0,3%	0,5%	-0,3473	0,3927
1	0,3%	0,8%	0,2438	0,2394
2	-0,3%	0,6%	-0,0489	-0,1393
3	0,0%	0,6%	0,0220	0,2483
4	0,2%	0,7%	-0,9834	0,4389
5	0,1%	0,8%	-1,8062	-0,9742

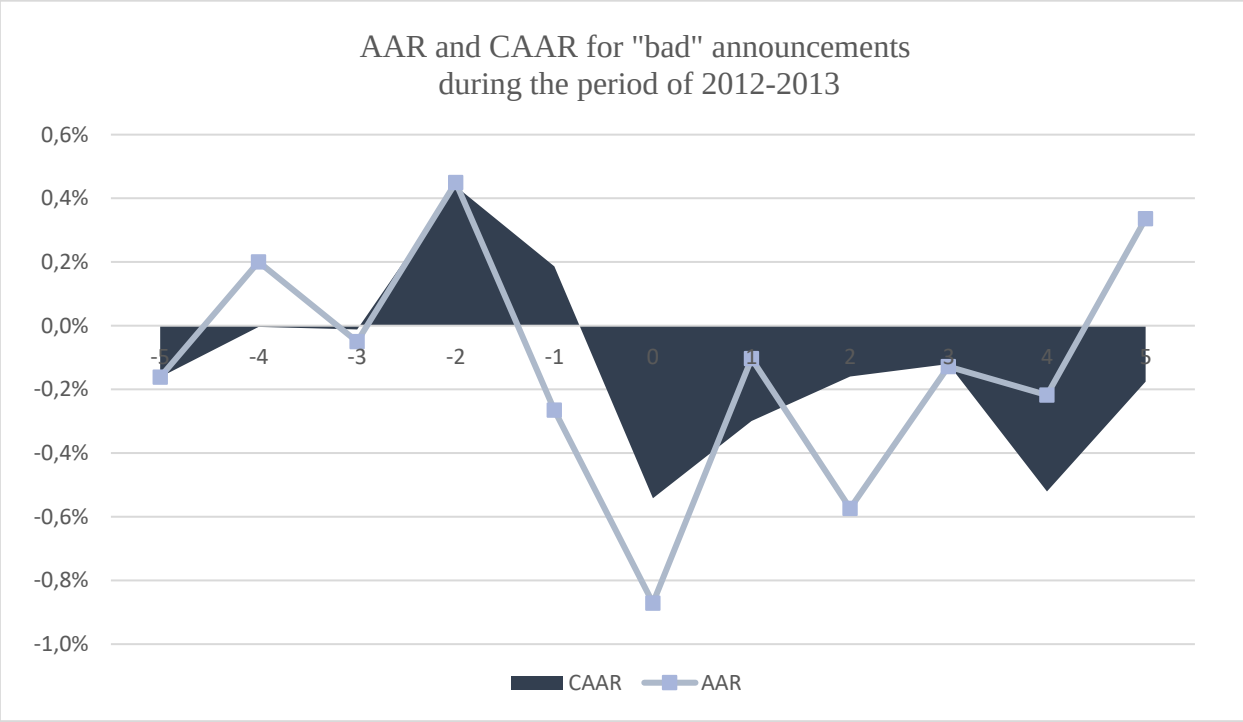
The graphical data representation of the “bad” news release regarding dividend payments is shown below. However, it can be concluded that these results are statistically insignificant neglecting the positive news’ impact on stock prices.



Graph 3. AAR and CAAR for "bad" announcements during the period of 2012-2017

To receive more consistent and statistically significant results, the data sample with bad announcements was divided into different subsets that might explain the true nature of price behavior to the announcements of decreased dividend payments.

In addition to analyzing the full sample of 137 negative announcements, we also split the sample into two subsets for each specific time periods: the time period of 2012-2013 years when the economy had higher GDP and the time period of 2014-2016 when the economy experienced the downturn being in deep financial crisis due to the political situation with Crimea.



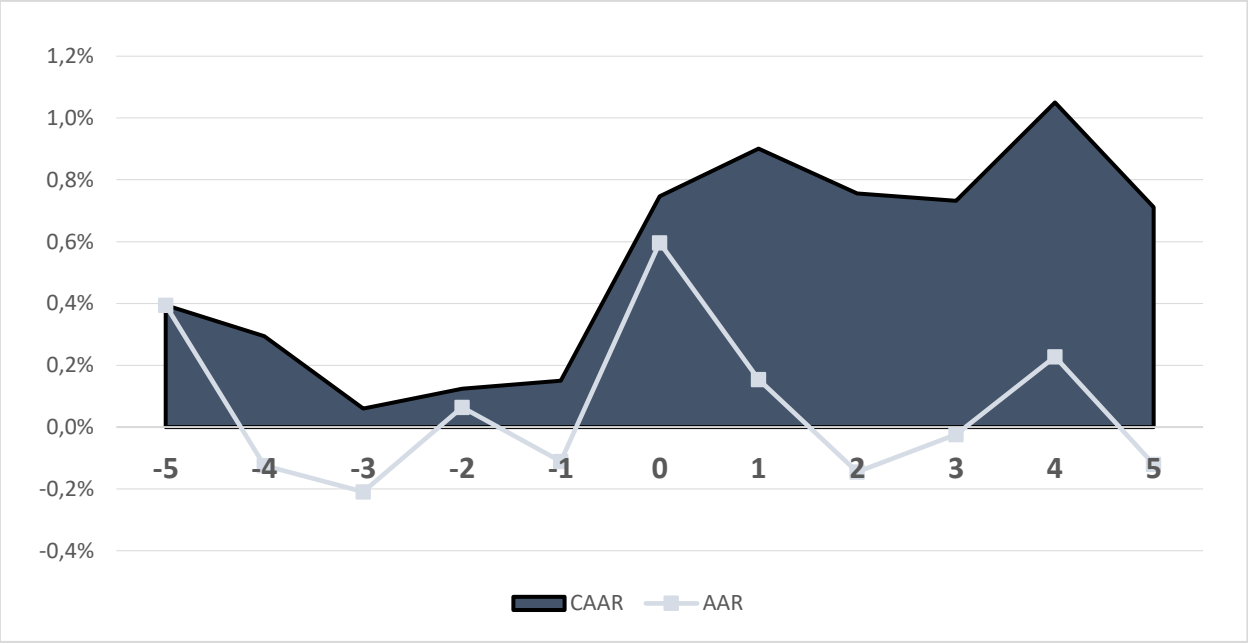
Graph 4. AAR and CAAR for "bad" announcements during the period of 2012-2013

From the graph above, we can conclude that in a more economically flavored situation (2012-2013 years) the financial market reacted negatively to the publication of decreased dividend payments one day before the announcement, on the day of announcement and during after-announcement period.

However, totally opposite results were received for the period of 2014-2016 years when the economy was in a recession. Investors positively react to the publication of decreased dividend payments on the day of announcement and during after-announcement period. It could be explained by the fact that in the times of scare financial resources shareholders and investors prefer companies to reinvest money into business rather than increasing dividend payments.

Thereby, Hypothesis 3 which states that the state of economy influences the relationship between announcements of dividend payments and price behavior of Russian companies is confirmed.

Hence, we can conclude that shareholders should take into account the fact that dividend decrease does not necessarily result in the reduction of the company's stock price and thus market capitalization but even could lead in the increase of its share price.

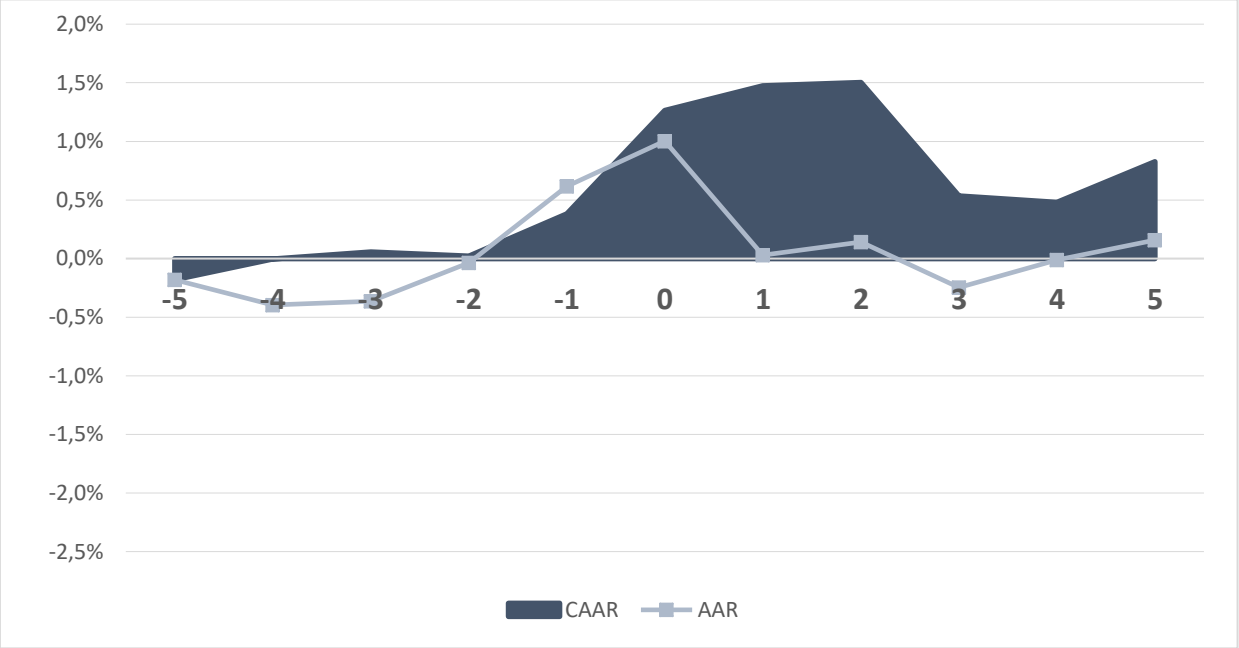


Graph 5. AAR and CAAR for "bad" announcements during the period of 2014-2016

The same iterations have been made for the sample of "good" announcements. In addition to analyzing the full sample of 192 positive announcements, the sample was split into two subsets for each specific time periods: the time period of 2012-2013 years when the

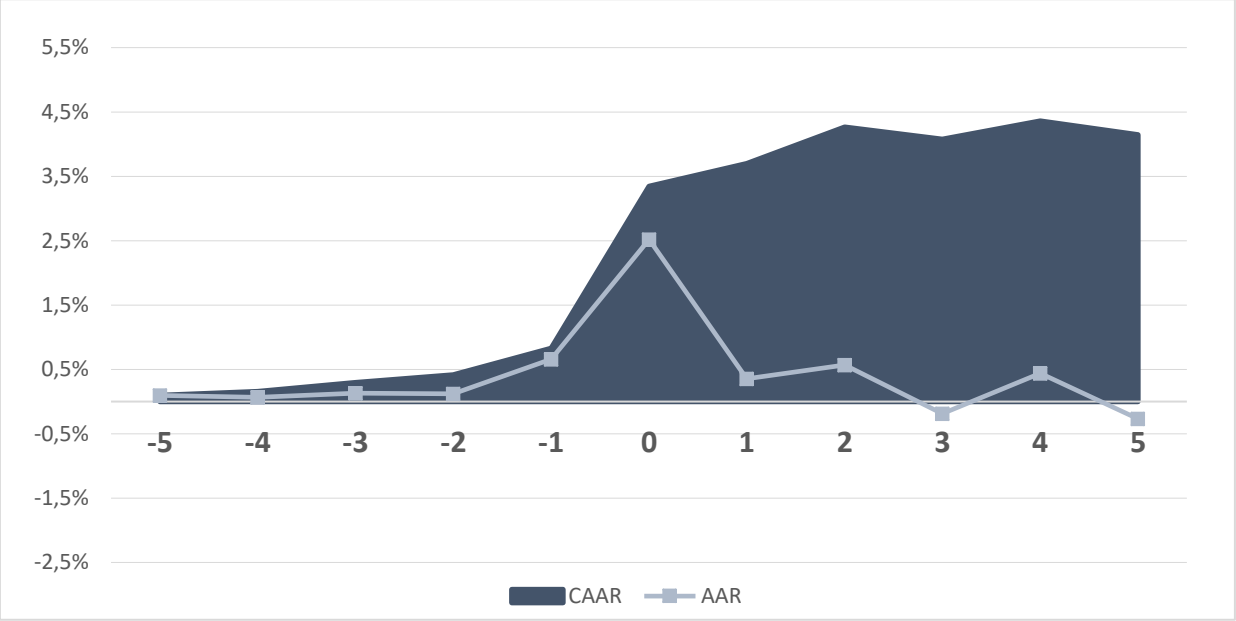
economy had higher GDP and the time period of 2014-2016 when the economy experienced the downturn.

From the graphs 6 and 7, we can conclude that there are no significant differences in the relationship between publication good news and stock price dynamics in two time periods when the economy was in a boom and in recession. Both in a more economically flavored situation (2012-2013 years) and less economically beneficial situation the financial market reacted positively to the publication of increased dividend payments.



Graph 6. AAR and CAAR for "good" announcements during the period of 2012-2013

However, the effect is stronger in the case of worse macroeconomic situation (1-2% of CAAR in 2012-2013 relative to 3-4% of CAAR in 2014-2016). Hence, we can conclude that shareholders should take into account the fact that rise in dividend size in general result in the higher company's stock prices and thus market capitalization.



Graph 7. AAR and CAAR for "good" announcements during the period of 2014-2016

Additionally, the analysis revealed that companies with lesser investment opportunities do not necessarily have their prices dropped when they decrease the dividends paid. However, in some financial markets, those type of companies could experience the fall in their stock prices as shareholders and investors believe that exempted cash flows should rather be invested in dividend payments.

The same logic could be applied for the companies with bigger investment opportunities. In this case, some shareholders and investors prefer cash flows reinvested back into the company, as they could gain more earnings from the returns of the projects. However, Russian financial market does not necessarily negatively react to the decrease of the dividend size.

According to the event study analysis, the same company could experience positive stock price dynamics and negative stock price dynamics to the rise in dividend size irrespective to the fact whether it has more or less investment opportunities at the moment.

2.7. Theoretical contribution

As it has been mentioned earlier, the topic on relationship between dividend payments and stocks on Russian financial market remains topical and under-investigated. The existing research were conducted for the US market, for developed European countries and some of the developing countries as well. However, there are only few studies investigating the relationship between dividend payments and dynamics of share prices in Russia and, hence, in this study the research gap for Russian market has been filled.

The analysis has been conducted for the whole Russian market during the period of 2012-2017. This study partially confirms and partially contradicts with the study made by Teplova (2008). It was confirmed that the relationship between dividend payments and stock returns is ambiguous. Depending on the type of the dividend announcements, the results of event study differs. If there is an increase of the dividend size, the relationship is positive between dividends payments and stock prices. However, in the study (Teplova, 2008) the relationship was both positive and negative depending on the investment potential of the firms. This result contradicts with the findings of this research. It was concluded that the investment potential of the firm does not affect this relationship. There are several reasons that could explain this difference. Firstly, Teplova (2008) investigated only Oil & Gas companies, while this study is conducted for the whole Russian market. Secondly, the analysis (Teplova,2008) was conducted 10 years ago, since then the efficiency of the Russian financial market has been improved as well as its stage of development.

Another research was conducted for the whole Russian market but it investigated only the relationship between dividend surprises and stock market (Berezinetz et al., 2016). However, this research is not specified only for the dividend surprises – those information events regarding dividends that do not reflect the expectations formed by analysts' recommendations, but also includes all the announcements of changes in dividends' size.

2.8. Practical implication

One of the main practical implications is the fact that management and shareholders when forming the size of dividend payments should take into account the economic situation of the country. According to the research results, investors positively react to the publication of decreased dividend payments when the economy is in a recession and positively react to these publications when the economy is in a boom. This finding is useful for companies' managers, who, knowing that dividend announcement affect stock prices, can determine different periods for dividend announcement, increase or decrease the size of dividends, hence, sending the desired information into the market which, consequently, increases company's market value.

The second implication is that increases in dividends bring the positive signal to the market meaning that the stock prices will increase with the rise of dividend payments. Being acknowledged of this information, company's management could, firstly, increase the stock price market capitalization of the firm and, secondly, reduce the agency conflicts between them and shareholders.

Another practical implication could be valuable for the investors and traders. It was defined that the Russian market efficiency is in a semi-strong form. The implication of semi-strong form efficiency for the individual investor is that it is highly unlikely that one can spot a share being sold at a bargain price. This is because the markets will already have gained knowledge of, analyzed information and, the impact thereof will have quickly been reflected in the current price of that share. However, an investor may take steps to help ensure that his or her investment reacts in a timely fashion to public announcements. Such an investor may employ the services of institutional investors to act on his or her behalf.

The results of this study could be applied in practice when constructing stocks portfolio, because the results could help to evaluate possible abnormal changes in stock prices due to the dividend announcement

2.9. Study limitations and further research

The scope of the study, however, is limited as it focuses only on firms listed in Moscow Exchange Stock for the time period of 2012–2017. Thereby, the further research could expand the given time period and conduct an analysis for several stock exchanges (LSE, NYSE and others) where the Russian company's stocks are listed. The findings of this comparative analysis could provide more insights into setting the dividend policy which is more beneficial for Russian firms as it would show how different financial markets react to announcements in dividend payments.

Another limitation of the study is inadequate number of observations (dividend announcements) to provide findings for each particular industry, rather than make them for Russian market in general. Due to the fact that data was collected for 329 dividend announcements, the division into samples for each industry would not be justified because of the small number of observations for some industries. Thereby, the avenue for further research is to increase the sample so that there are enough observations presented for each industry which could lead to additional insights.

Another recommendation to go further in studying the dividend signal theory and the subsequent reaction of prices for growth and dividends, is to investigate these events on both the bull market and the bear market as was done by Below and Johnson (1996).

CONCLUSION

In this study the relationship between dividend announcements and stock price dynamics was analyzed for the companies listed on the MOEX market during the 2012–2017 period. This study reveals how efficient the Russian market is regarding dividend announcements, and to what extent market players could earn abnormal returns on the stocks they possess.

The analysis of dividend policy theories, explaining the interaction of the market value of companies and changes in dividends, have been conducted. The market efficiency hypothesis was also considered in the framework of declaring dividends. Additionally, the event study analysis has been performed which explained the effect of dividend payments on company's stock prices. The event study method is the most common method as it has proved its effectiveness comparing to other financial methods because only this method uses forward-looking approach and direct measure of created added value for investors. Finally, the results of the research have been described and the indicators were tested for statistical significance.

One of the research questions have been formulated in the following way: How efficient is the Russian financial market? Summarizing the analysis of financial market efficiency, it is worth noting that the detection of abnormal revenues signals the market's inefficiency, while their absence confirms the hypothesis of the fully efficient market. Thus, the research results confirmed that Russian financial market has a semi-strong form of efficiency meaning that investors could potentially profit from the news announcements as the stock price reflects only historical prices and returns and publicly available information.

These results slightly differ from those presented by Bozos, Nikolopoulos and Ramgandhi (2011), who examined the signaling theory of dividends on the London Stock Exchange, focusing only on the final dividends (paid in the end of the financial year), excluding intermediate dividends in the sample and confirming the signaling theory of dividends with the level confidence interval of 99%. In their study, most of the market reaction took place on days 2 and 3 after the announcement of dividends and excess income came to naught by the end of 5 days after the announcement of dividends. This difference in results can be explained by the fact that the final dividends may have a greater impact on the decision-making process of investors than intermediaries. Moreover, a study by Bozos et al. (2011) was focused on the UK financial market, which is more advanced compared to Russian in the terms of the development stage of financial markets.

However, the results of this study are partially consistent with the results conducted for Russian market (Teplova, 2008; Berezinetz et al., 2016). Announcements of the increase in the size of dividends indeed result in the rise of stock prices of Russian companies.

However, the hypothesis stating that negative announcements cause the decrease in share price fluctuations has not been confirmed due to the low t-test statistics values. Hence, to check this hypothesis the sample was divided into two subsets for two time periods:

- time period of 2012-2013 when the economy has not been in a downturn yet, and
- time period of 2014-2016 when the economy experienced deep recession

It was concluded that the financial market reacted negatively to the publication of decreased dividend payments in a more economically flavored situation (2012-2013 years) while it yielded positive abnormal returns when it was in crisis. It could be explained by the fact that in the times of scare financial resources shareholders and investors prefer companies to reinvest money into business rather than increasing dividend payments.

To sum up, shareholders and the management of the company should take into account the fact that dividend decrease does not necessarily result in the reduction of the company's stock price and, thus, market capitalization, but even could lead to the increase of its share price respective to the macroeconomic context. However, the increase of the dividend payments yields an increase in company's stock price due to the dividend signaling theory which is consistent with the results made by Teplova (2008). Furthermore, the results of this study could be applied in practice when constructing stocks portfolio, as they could help to evaluate possible abnormal changes in stock prices due to dividend announcement from which financial agents (traders and investors) could benefit making profit on trading strategies.

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Appendix 1. Stock returns

COMPANY	TYPE OF EVENT	R	ER	AR (0)	CAR (0)
SBERBANK OF RUSSIA	GOOD	-2,3%	0,1%	-2,4%	-6,0%
SBERBANK OF RUSSIA	GOOD	-0,2%	-0,2%	0,0%	-1,0%
SBERBANK OF RUSSIA	BAD	-5,4%	0,0%	-5,4%	0,9%
SBERBANK OF RUSSIA	GOOD	0,5%	0,2%	0,3%	7,5%
SBERBANK OF RUSSIA	GOOD	3,0%	0,0%	3,0%	4,8%
GAZPROM	GOOD	0,0%	0,1%	-0,1%	3,5%
GAZPROM	BAD	-0,1%	0,0%	0,0%	-3,8%
GAZPROM	GOOD	0,9%	-0,1%	1,0%	5,8%
GAZPROM	GOOD	-1,8%	0,0%	-1,8%	4,0%
GAZPROM	GOOD	-0,4%	0,0%	-0,4%	-4,5%
ROSNEFT	BAD	4,4%	0,0%	4,4%	6,7%
ROSNEFT	BAD	1,4%	0,2%	1,2%	-3,7%
ROSNEFT	GOOD	1,7%	-0,1%	1,7%	-2,8%
ROSNEFT	BAD	-1,3%	0,1%	-1,4%	-2,7%
ROSNEFT	GOOD	1,5%	0,2%	1,3%	4,3%
OIL COMPANY LUKOIL	GOOD	0,2%	0,0%	0,1%	3,6%
OIL COMPANY LUKOIL	GOOD	1,4%	0,1%	1,3%	0,6%
OIL COMPANY LUKOIL	GOOD	1,6%	0,0%	1,6%	-0,1%
OIL COMPANY LUKOIL	GOOD	-0,2%	0,0%	-0,1%	-2,4%
OIL COMPANY LUKOIL	GOOD	-1,3%	-0,1%	-1,2%	0,1%
OIL COMPANY LUKOIL	BAD	1,2%	0,0%	1,2%	-2,5%
OIL COMPANY LUKOIL	GOOD	-0,6%	0,2%	-0,8%	-2,1%
OIL COMPANY LUKOIL	GOOD	2,3%	-0,1%	2,4%	2,2%
OIL COMPANY LUKOIL	GOOD	-1,3%	0,2%	-1,5%	0,2%
OIL COMPANY LUKOIL	GOOD	0,4%	-0,1%	0,5%	5,2%
NOVATEK	GOOD	-2,8%	0,1%	-2,9%	-4,7%
NOVATEK	BAD	0,4%	-0,1%	0,5%	-0,1%
NOVATEK	GOOD	-0,9%	-0,1%	-0,7%	-0,9%
NOVATEK	BAD	0,9%	0,1%	0,8%	-2,4%
NOVATEK	GOOD	8,6%	0,1%	8,6%	-8,8%
NOVATEK	GOOD	-0,2%	0,1%	-0,2%	-6,1%
NOVATEK	GOOD	-2,1%	0,2%	-2,3%	-9,5%
NOVATEK	GOOD	0,6%	0,1%	0,4%	-4,8%
NOVATEK	GOOD	0,5%	0,0%	0,5%	-2,6%
NOVATEK	BAD	-1,8%	0,1%	-1,9%	2,0%
NOVATEK	GOOD	-0,6%	0,1%	-0,7%	-5,8%
NOVATEK	BAD	0,3%	-0,2%	0,5%	2,5%
MMC NORILSK NICKEL	GOOD	1,7%	0,0%	1,7%	0,9%
MMC NORILSK NICKEL	GOOD	1,8%	0,1%	1,7%	-4,2%
MMC NORILSK NICKEL	BAD	2,2%	0,0%	2,2%	4,9%
MMC NORILSK NICKEL	GOOD	1,1%	0,2%	0,9%	-0,5%
MMC NORILSK NICKEL	GOOD	4,4%	0,1%	4,3%	2,8%
MMC NORILSK NICKEL	BAD	2,0%	0,3%	1,7%	-3,5%
MMC NORILSK NICKEL	BAD	3,9%	-0,2%	4,1%	10,1%
MMC NORILSK NICKEL	GOOD	-0,3%	-0,1%	-0,2%	-0,8%

COMPANY	TYPE OF EVENT	R	ER	AR (0)	CAR (0)
MMC NORILSK NICKEL	GOOD	1,0%	0,0%	1,0%	10,1%
MMC NORILSK NICKEL	GOOD	0,0%	-0,1%	0,0%	1,8%
MMC NORILSK NICKEL	BAD	-0,8%	0,0%	-0,7%	4,5%
GAZPROM NEFT	GOOD	2,6%	0,2%	2,4%	-0,2%
GAZPROM NEFT	GOOD	0,8%	-0,2%	1,0%	-0,2%
GAZPROM NEFT	BAD	2,8%	-0,1%	2,9%	2,2%
GAZPROM NEFT	GOOD	-0,8%	-0,1%	-0,8%	7,8%
GAZPROM NEFT	BAD	2,5%	-0,1%	2,6%	4,7%
GAZPROM NEFT	BAD	-0,4%	0,0%	-0,5%	1,4%
GAZPROM NEFT	GOOD	-0,1%	-0,2%	0,2%	6,3%
GAZPROM NEFT	BAD	-1,0%	0,0%	-1,0%	-0,3%
GAZPROM NEFT	GOOD	-0,2%	0,1%	-0,3%	-0,3%
GAZPROM NEFT	BAD	1,3%	0,2%	1,1%	4,2%
TATNEFT	GOOD	1,3%	0,3%	1,0%	-1,4%
TATNEFT	GOOD	-1,7%	-0,1%	-1,7%	9,8%
TATNEFT	BAD	0,8%	0,0%	0,8%	-2,1%
TATNEFT	GOOD	3,2%	0,1%	3,1%	3,7%
TATNEFT	GOOD	0,1%	0,0%	0,0%	2,2%
TATNEFT	GOOD	6,1%	-0,1%	6,2%	10,3%
TATNEFT	GOOD	11,7%	0,1%	11,7%	14,2%
NOVOLIPETSK STEEL	BAD	-2,2%	-0,2%	-2,0%	-0,2%
NOVOLIPETSK STEEL	GOOD	2,8%	-0,2%	3,0%	3,9%
NOVOLIPETSK STEEL	GOOD	2,0%	-0,2%	2,3%	0,3%
NOVOLIPETSK STEEL	GOOD	4,7%	-0,1%	4,8%	9,4%
NOVOLIPETSK STEEL	BAD	2,8%	-0,1%	2,9%	7,8%
NOVOLIPETSK STEEL	GOOD	-2,0%	0,0%	-2,0%	-2,5%
NOVOLIPETSK STEEL	GOOD	1,5%	0,2%	1,3%	11,0%
NOVOLIPETSK STEEL	GOOD	0,1%	0,2%	0,0%	1,4%
SEVERSTAL	GOOD	-0,7%	0,1%	-0,8%	-3,4%
SEVERSTAL	GOOD	-1,5%	-0,5%	-1,0%	7,8%
SEVERSTAL	GOOD	-0,8%	0,1%	-0,8%	-2,3%
SEVERSTAL	BAD	-1,7%	-0,1%	-1,7%	-5,7%
SEVERSTAL	GOOD	4,5%	0,3%	4,1%	0,8%
SEVERSTAL	GOOD	-0,5%	0,1%	-0,6%	6,2%
MOBILE TELESYSTEMS	GOOD	-0,2%	0,2%	-0,4%	-1,0%
MOBILE TELESYSTEMS	BAD	-0,5%	0,1%	-0,6%	3,3%
MOBILE TELESYSTEMS	BAD	0,4%	0,1%	0,3%	0,8%
MOBILE TELESYSTEMS	GOOD	-2,2%	-0,2%	-2,0%	-6,9%
MOBILE TELESYSTEMS	BAD	1,0%	-0,1%	1,0%	2,7%
MOBILE TELESYSTEMS	GOOD	3,7%	0,1%	3,6%	2,5%
MOBILE TELESYSTEMS	BAD	2,7%	-0,1%	2,7%	4,5%
MOBILE TELESYSTEMS	GOOD	-0,6%	0,1%	-0,7%	5,1%
MOBILE TELESYSTEMS	BAD	-0,4%	0,0%	-0,5%	2,6%
MOBILE TELESYSTEMS	GOOD	-0,2%	0,2%	-0,4%	-2,6%
MOBILE TELESYSTEMS	BAD	-0,3%	-0,1%	-0,2%	3,3%
MAGNIT	GOOD	1,0%	0,1%	0,9%	3,5%
MAGNIT	GOOD	2,2%	0,1%	2,0%	6,1%

COMPANY	TYPE OF EVENT	R	ER	AR (0)	CAR (0)
MAGNIT	BAD	1,2%	0,2%	1,0%	7,9%
MAGNIT	GOOD	0,4%	-0,1%	0,4%	7,6%
MAGNIT	BAD	0,6%	0,1%	0,5%	-8,9%
MAGNIT	GOOD	1,5%	0,2%	1,2%	10,4%
MAGNIT	BAD	1,0%	0,1%	0,9%	6,8%
MAGNIT	BAD	2,0%	0,1%	1,9%	-1,8%
MAGNIT	GOOD	0,6%	0,0%	0,7%	-4,4%
MAGNIT	BAD	-0,1%	-0,1%	0,0%	-1,7%
MAGNIT	GOOD	-0,3%	0,0%	-0,3%	3,2%
MAGNIT	GOOD	0,7%	0,1%	0,6%	0,3%
MAGNIT	BAD	-0,6%	-0,1%	-0,4%	-3,0%
MAGNIT	GOOD	0,5%	0,0%	0,5%	2,9%
POLYUS	BAD	-1,0%	-0,1%	-0,9%	1,8%
POLYUS	GOOD	0,4%	0,0%	0,4%	0,5%
POLYUS	BAD	0,2%	-0,1%	0,3%	9,3%
BASHNEFT	BAD	-0,2%	0,0%	-0,3%	2,4%
BASHNEFT	GOOD	0,4%	0,0%	0,4%	0,4%
BASHNEFT	GOOD	0,0%	0,0%	0,0%	5,6%
BASHNEFT	BAD	-1,7%	0,4%	-2,1%	-1,4%
BASHNEFT	GOOD	0,0%	0,3%	-0,4%	-1,0%
BASHNEFT	BAD	2,0%	-0,2%	2,2%	2,0%
BASHNEFT	GOOD	1,6%	-0,3%	2,0%	2,6%
RUSHYDRO	BAD	-8,7%	-0,2%	-8,5%	-15,7%
RUSHYDRO	GOOD	1,9%	-0,3%	2,2%	1,4%
RUSHYDRO	GOOD	-1,7%	0,0%	-1,7%	3,4%
RUSHYDRO	GOOD	-1,6%	-0,1%	-1,6%	-2,5%
RUSHYDRO	GOOD	0,0%	0,1%	-0,1%	-2,3%
RUSHYDRO	GOOD	2,4%	0,0%	2,5%	-3,8%
TRANSNEFT	GOOD	-1,8%	0,5%	-2,3%	-1,4%
TRANSNEFT	BAD	-0,5%	0,0%	-0,5%	4,1%
TRANSNEFT	GOOD	-6,1%	0,0%	-6,1%	-3,6%
TRANSNEFT	GOOD	-0,7%	-0,1%	-0,6%	5,0%
TRANSNEFT	GOOD	-3,4%	0,0%	-3,4%	-0,8%
TRANSNEFT	GOOD	-0,2%	-0,2%	-0,1%	-5,7%
URALKALIY PAO	GOOD	1,6%	0,1%	1,5%	-3,7%
URALKALIY PAO	BAD	-0,2%	-0,1%	-0,2%	1,0%
URALKALIY PAO	BAD	-0,6%	-0,2%	-0,4%	4,0%
URALKALIY PAO	BAD	0,0%	0,0%	0,0%	-0,5%
URALKALIY PAO	GOOD	1,0%	-0,1%	1,1%	0,1%
URALKALIY PAO	BAD	1,7%	-0,1%	1,8%	0,5%
AKRON PAO	BAD	-2,4%	0,1%	-2,5%	-9,7%
AKRON PAO	BAD	-2,6%	-0,1%	-2,5%	-2,8%
AKRON PAO	GOOD	0,6%	0,1%	0,6%	-1,4%
AKRON PAO	GOOD	0,5%	0,0%	0,5%	-1,1%
AKRON PAO	GOOD	6,1%	0,1%	6,0%	2,7%
AKRON PAO	BAD	6,1%	0,5%	5,6%	-1,5%
AKRON PAO	BAD	1,2%	0,4%	0,8%	2,2%

COMPANY	TYPE OF EVENT	R	ER	AR (0)	CAR (0)
AKRON PAO	GOOD	-3,3%	0,1%	-3,4%	-0,7%
AKRON PAO	BAD	0,6%	0,0%	0,6%	0,4%
AKRON PAO	BAD	3,5%	-0,2%	3,6%	5,9%
AKRON PAO	GOOD	5,4%	0,0%	5,4%	6,6%
AKRON PAO	BAD	0,5%	0,2%	0,3%	-1,6%
AEROFLOT RUSS.AIRL.	GOOD	0,7%	-0,1%	0,8%	-5,5%
AEROFLOT RUSS.AIRL.	BAD	1,9%	0,1%	1,8%	3,8%
AEROFLOT RUSS.AIRL.	GOOD	1,7%	-0,1%	1,8%	4,6%
AEROFLOT RUSS.AIRL.	BAD	1,1%	0,0%	1,1%	-5,3%
AEROFLOT RUSS.AIRL.	GOOD	-2,6%	0,3%	-2,9%	-1,3%
ALROSA-NYURBA	GOOD	-10,9%	0,1%	-11,0%	-8,0%
ALROSA-NYURBA	BAD	-0,5%	0,0%	-0,5%	-2,4%
ALROSA-NYURBA	GOOD	-4,5%	0,2%	-4,7%	-5,4%
ALROSA-NYURBA	BAD	0,0%	0,0%	0,0%	-0,2%
ALROSA-NYURBA	GOOD	0,0%	-0,1%	0,1%	0,3%
ALROSA-NYURBA	BAD	3,2%	0,0%	3,2%	1,3%
ALROSA-NYURBA	GOOD	5,2%	0,2%	5,0%	3,8%
ALROSA-NYURBA	BAD	0,0%	0,2%	-0,2%	6,3%
ALROSA-NYURBA	GOOD	-1,4%	0,4%	-1,8%	-8,2%
ALROSA-NYURBA	BAD	3,3%	-0,1%	3,4%	3,1%
ALROSA-NYURBA	GOOD	-1,1%	0,0%	-1,2%	8,4%
MOSKOVSKAYA GORODSKAYA TELEFONNAYA SET' PAO	GOOD	30,6%	0,0%	30,6%	30,5%
MOSKOVSKAYA GORODSKAYA TELEFONNAYA SET' PAO	BAD	0,0%	0,1%	-0,1%	-1,2%
MOSKOVSKAYA GORODSKAYA TELEFONNAYA SET' PAO	GOOD	33,5%	0,1%	33,4%	38,8%
MOSKOVSKAYA GORODSKAYA TELEFONNAYA SET' PAO	GOOD	33,5%	0,1%	33,4%	37,6%
NOVOROSSIYSKIY MORSKOY TORGOVYI PORT PAO	GOOD	-3,8%	0,1%	-3,9%	-11,5%
NOVOROSSIYSKIY MORSKOY TORGOVYI PORT PAO	BAD	-0,9%	-0,4%	-0,5%	-2,9%
NOVOROSSIYSKIY MORSKOY TORGOVYI PORT PAO	GOOD	8,2%	-0,1%	8,3%	6,8%
NOVOROSSIYSKIY MORSKOY TORGOVYI PORT PAO	BAD	-2,0%	0,5%	-2,5%	3,9%
NOVOROSSIYSKIY MORSKOY TORGOVYI PORT PAO	BAD	-0,8%	0,2%	-0,9%	-1,5%
NOVOROSSIYSKIY MORSKOY TORGOVYI PORT PAO	GOOD	17,6%	0,0%	17,6%	16,8%
NOVOROSSIYSKIY MORSKOY TORGOVYI PORT PAO	GOOD	6,4%	0,1%	6,3%	10,4%
ROSTELEKOM PAO	GOOD	-0,6%	-0,1%	-0,5%	-1,0%
ROSTELEKOM PAO	BAD	6,1%	-0,1%	6,3%	13,3%
ROSTELEKOM PAO	GOOD	2,5%	-0,3%	2,8%	8,4%
ROSTELEKOM PAO	GOOD	0,7%	-0,3%	0,9%	2,3%
ROSTELEKOM PAO	GOOD	0,6%	0,1%	0,5%	-0,6%
ROSTELEKOM PAO	BAD	0,2%	-0,1%	0,2%	0,4%
VSMPO	GOOD	-1,5%	-0,2%	-1,3%	-2,2%
VSMPO	GOOD	0,6%	0,0%	0,6%	1,3%
VSMPO	GOOD	3,0%	0,0%	3,0%	7,7%
VSMPO	GOOD	1,7%	0,3%	1,5%	2,8%
VSMPO	BAD	8,6%	-0,1%	8,7%	14,6%
VSMPO	BAD	-0,5%	0,1%	-0,6%	-1,5%
VSMPO	GOOD	3,4%	0,0%	3,4%	5,0%
VSMPO	BAD	5,4%	0,1%	5,3%	0,0%
VSMPO	GOOD	0,3%	0,1%	0,2%	1,3%

COMPANY	TYPE OF EVENT	R	ER	AR (0)	CAR (0)
BANK SAINT PETERSBURG	GOOD	-0,6%	0,1%	-0,6%	-0,4%
BANK SAINT PETERSBURG	BAD	-3,0%	0,2%	-3,2%	4,0%
BANK SAINT PETERSBURG	GOOD	-0,5%	0,0%	-0,5%	-0,7%
CHERKIZOVO GROUP	GOOD	-0,1%	0,0%	-0,1%	1,6%
CHERKIZOVO GROUP	GOOD	-4,1%	0,1%	-4,2%	-7,1%
CHERKIZOVO GROUP	BAD	0,7%	0,1%	0,6%	-3,4%
CHERKIZOVO GROUP	BAD	0,6%	0,1%	0,5%	4,5%
CHERKIZOVO GROUP	GOOD	1,2%	0,3%	0,9%	1,3%
MRSK SEVERNOGO KAVKAZA PAO	GOOD	4,5%	-0,4%	4,9%	7,3%
MRSK SEVERNOGO KAVKAZA PAO	BAD	8,1%	0,1%	8,0%	18,9%
IRKUTSKENERGO	GOOD	-1,6%	0,0%	-1,7%	-5,7%
IRKUTSKENERGO	GOOD	3,3%	-0,3%	3,7%	7,6%
IRKUTSKENERGO	BAD	-2,3%	-0,2%	-2,1%	-1,3%
IRKUTSKENERGO	GOOD	33,4%	0,0%	33,4%	33,8%
IRKUTSKENERGO	BAD	-2,7%	0,2%	-2,9%	-5,8%
KAMAZ	GOOD	0,3%	0,0%	0,2%	-1,0%
KAMAZ	BAD	6,3%	-0,2%	6,5%	6,8%
KAMAZ	BAD	0,8%	0,2%	0,6%	-0,8%
KAMAZ	GOOD	-1,5%	0,1%	-1,6%	-1,7%
LENENERGO	GOOD	2,2%	-0,3%	2,5%	9,3%
LENENERGO	BAD	4,1%	0,1%	4,0%	2,4%
LENENERGO	BAD	-1,3%	0,1%	-1,4%	-3,5%
LENENERGO	GOOD	-2,9%	0,0%	-3,0%	-5,7%
LSR GROUP	GOOD	-3,6%	-0,3%	-3,3%	6,4%
LSR GROUP	GOOD	-0,4%	-0,2%	-0,2%	6,6%
LSR GROUP	GOOD	0,3%	0,0%	0,4%	0,8%
M VIDEO	GOOD	-0,3%	0,1%	-0,4%	-3,3%
M VIDEO	GOOD	2,6%	0,1%	2,5%	4,2%
M VIDEO	BAD	1,6%	0,0%	1,6%	1,9%
M VIDEO	GOOD	0,1%	-0,2%	0,3%	1,5%
M VIDEO	GOOD	8,3%	-0,1%	8,4%	8,1%
M VIDEO	GOOD	0,0%	0,0%	0,0%	-0,6%
M VIDEO	BAD	0,0%	0,2%	-0,2%	0,6%
M VIDEO	BAD	1,2%	0,1%	1,1%	0,3%
MOSTOTREST	GOOD	0,0%	0,1%	-0,1%	-7,8%
MOSTOTREST	GOOD	-1,6%	-0,1%	-1,5%	2,0%
MOSTOTREST	BAD	-0,6%	-0,3%	-0,3%	0,2%
MOSTOTREST	GOOD	2,0%	0,1%	1,9%	4,6%
MOSTOTREST	BAD	-0,4%	0,2%	-0,6%	4,6%
NIZHNEKAMSKNEFTEKHIM	GOOD	1,5%	0,2%	1,2%	0,7%
NIZHNEKAMSKNEFTEKHIM	GOOD	0,9%	0,1%	0,8%	-1,3%
NIZHNEKAMSKNEFTEKHIM	BAD	0,5%	0,0%	0,6%	-3,7%
NIZHNEKAMSKNEFTEKHIM	GOOD	2,5%	0,3%	2,2%	-1,3%
NIZHNEKAMSKNEFTEKHIM	GOOD	10,3%	0,2%	10,1%	5,3%
NIZHNEKAMSKNEFTEKHIM	BAD	0,0%	0,1%	-0,1%	-6,4%
SISTEMA JSFC	GOOD	-0,6%	0,1%	-0,7%	-3,4%
SISTEMA JSFC	GOOD	0,2%	0,1%	0,2%	-1,0%

COMPANY	TYPE OF EVENT	R	ER	AR (0)	CAR (0)
SISTEMA JSFC	BAD	-4,2%	0,2%	-4,5%	-2,8%
SISTEMA JSFC	GOOD	0,6%	0,0%	0,6%	11,7%
SISTEMA JSFC	BAD	-0,2%	0,2%	-0,4%	-0,4%
SLAVNEFT MEGIONNEFTEGAZ	GOOD	1,2%	-0,1%	1,3%	-5,3%
SLAVNEFT MEGIONNEFTEGAZ	GOOD	-2,4%	-0,1%	-2,3%	-4,3%
STHN.KUZBASS COAL CO.	GOOD	16,9%	0,0%	16,8%	5,1%
STHN.KUZBASS COAL CO.	BAD	-12,9%	-0,4%	-12,5%	-10,8%
TMK OAO	GOOD	2,6%	0,0%	2,5%	-8,1%
TMK OAO	BAD	-1,4%	0,0%	-1,4%	2,0%
TMK OAO	BAD	0,9%	-0,1%	1,0%	2,3%
TMK OAO	GOOD	0,0%	0,0%	0,0%	1,1%
TMK OAO	BAD	1,2%	-0,2%	1,4%	1,1%
TMK OAO	BAD	1,0%	0,1%	0,9%	4,0%
TMK OAO	BAD	-2,7%	-0,4%	-2,3%	5,4%
TMK OAO	GOOD	2,3%	0,0%	2,3%	-3,2%
TMK OAO	BAD	-1,2%	0,0%	-1,2%	-2,0%
TMK OAO	GOOD	0,8%	0,0%	0,9%	8,2%
TMK OAO	GOOD	-2,2%	0,0%	-2,2%	2,4%
TRANS CONTAINER	GOOD	0,0%	0,2%	-0,2%	-1,6%
TRANS CONTAINER	BAD	0,0%	-0,1%	0,1%	-1,4%
TRANS CONTAINER	BAD	-3,5%	-0,2%	-3,3%	-9,5%
TRANS CONTAINER	BAD	-0,4%	0,0%	-0,4%	0,5%
TRANS CONTAINER	BAD	0,0%	0,3%	-0,3%	-1,5%
TRANS CONTAINER	GOOD	3,0%	0,4%	2,6%	4,8%
TRANS CONTAINER	GOOD	3,0%	0,4%	2,6%	4,8%
TRANS CONTAINER	BAD	-1,1%	-0,1%	-1,0%	-0,6%
CHELYABINSKIY KUZNECHNO-PRESSOVYI ZAVOD PAO	GOOD	-3,8%	0,1%	-3,9%	-26,3%
CHELYABINSKIY KUZNECHNO-PRESSOVYI ZAVOD PAO	BAD	0,0%	0,0%	0,0%	0,3%
CHELYABINSKIY KUZNECHNO-PRESSOVYI ZAVOD PAO	GOOD	0,0%	0,0%	0,0%	2,0%
CHELYABINSKIY KUZNECHNO-PRESSOVYI ZAVOD PAO	GOOD	0,0%	0,1%	-0,1%	-10,6%
GAZPROM GAZORASPREDELENIYE ROSTOV-NA-DONU PAO	GOOD	-1,4%	-0,1%	-1,3%	-9,6%
JSC LENZOLOTO	BAD	-1,1%	0,2%	-1,3%	-3,4%
JSC LENZOLOTO	GOOD	2,7%	0,0%	2,6%	8,3%
JSC LENZOLOTO	BAD	-0,7%	-0,1%	-0,6%	1,8%
JSC LENZOLOTO	GOOD	1,8%	0,0%	1,8%	5,1%
KRASNOKAMSKIY ZAVOD METALLICHESKIKH SETOK OAO	GOOD	0,0%	0,0%	0,0%	0,0%
KRASNOKAMSKIY ZAVOD METALLICHESKIKH SETOK OAO	BAD	0,0%	0,0%	0,0%	0,0%
KRASNOYARSKENERGOSBYT	BAD	0,0%	0,0%	0,0%	-16,6%
KRASNOYARSKENERGOSBYT	GOOD	0,0%	-0,1%	0,1%	1,9%
KRASNOYARSKENERGOSBYT	BAD	13,6%	-0,1%	13,7%	-11,9%
KRASNOYARSKENERGOSBYT	GOOD	21,5%	-0,1%	21,6%	25,2%
KRASNOYARSKENERGOSBYT	GOOD	27,8%	0,2%	27,6%	26,9%
KRASNOYARSKENERGOSBYT	BAD	7,7%	0,1%	7,6%	8,7%
KUBANENERGO	GOOD	0,3%	0,2%	0,1%	-0,7%
KUBANENERGO	BAD	-0,8%	0,1%	-0,8%	-2,5%
PERM EN.DISTRIBUTING CO.	GOOD	-0,5%	-0,2%	-0,3%	-1,1%
PERM EN.DISTRIBUTING CO.	BAD	0,8%	0,1%	0,8%	-0,6%

COMPANY	TYPE OF EVENT	R	ER	AR (0)	CAR (0)
PERM EN.DISTRIBUTING CO.	BAD	-2,2%	-0,1%	-2,2%	-1,1%
PERM EN.DISTRIBUTING CO.	BAD	0,0%	-0,1%	0,1%	2,6%
PERM EN.DISTRIBUTING CO.	BAD	8,8%	-0,1%	8,9%	9,5%
PERM EN.DISTRIBUTING CO.	GOOD	5,0%	0,0%	5,0%	4,2%
PERM EN.DISTRIBUTING CO.	GOOD	3,9%	0,0%	3,8%	3,5%
PERM EN.DISTRIBUTING CO.	GOOD	3,2%	0,1%	3,1%	3,1%
PRIMORIE BANK	GOOD	19,4%	0,0%	19,4%	17,6%
PRIMORIE BANK	BAD	0,0%	0,0%	0,0%	0,3%
PRIMORIE BANK	GOOD	0,0%	-0,1%	0,1%	5,7%
PRIMORIE BANK	BAD	0,0%	0,0%	0,0%	0,0%
PRIMORIE BANK	BAD	0,0%	-0,2%	0,2%	-9,1%
PRIMORIE BANK	GOOD	0,0%	0,0%	0,0%	0,2%
RSC ENERGIA	BAD	1,4%	0,1%	1,4%	-0,7%
RSC ENERGIA	BAD	-1,2%	0,0%	-1,3%	-6,0%
RSC ENERGIA	BAD	0,5%	-0,1%	0,6%	0,4%
RSC ENERGIA	GOOD	0,0%	0,0%	0,0%	-0,1%
RSC ENERGIA	BAD	0,3%	0,0%	0,3%	-1,4%
RSC ENERGIA	GOOD	1,3%	0,0%	1,3%	1,3%
RSC ENERGIA	BAD	0,2%	0,0%	0,2%	0,5%
ROSSIYSKIY AKTSIONERNYI KOMMERCHESKIY DOROZHNYI BANK PAO	BAD	0,0%	0,1%	-0,1%	-0,3%
ROSSIYSKIY AKTSIONERNYI KOMMERCHESKIY DOROZHNYI BANK PAO	BAD	0,0%	0,0%	0,0%	-0,1%
RYAZANSKAYA ENERGETICHESKAYA SBYTOVAYA KOMPANIYA PAO	BAD	0,0%	-0,2%	0,2%	7,1%
RYAZANSKAYA ENERGETICHESKAYA SBYTOVAYA KOMPANIYA PAO	BAD	-24,5%	-0,2%	-24,3%	-21,7%
RYAZANSKAYA ENERGETICHESKAYA SBYTOVAYA KOMPANIYA PAO	BAD	0,0%	-0,1%	0,1%	0,4%
RYAZANSKAYA ENERGETICHESKAYA SBYTOVAYA KOMPANIYA PAO	BAD	14,1%	-0,2%	14,3%	30,9%
RYAZANSKAYA ENERGETICHESKAYA SBYTOVAYA KOMPANIYA PAO	BAD	-15,5%	0,1%	-15,6%	-11,4%
RYAZANSKAYA ENERGETICHESKAYA SBYTOVAYA KOMPANIYA PAO	GOOD	0,4%	0,2%	0,2%	0,6%
SOLLERS	GOOD	-1,9%	0,3%	-2,2%	-4,0%
TNS ENERGO	GOOD	-2,1%	0,0%	-2,1%	9,2%
TNS ENERGO	BAD	-0,3%	-0,1%	-0,3%	-2,3%
TNS ENERGO YAROSLAVL	GOOD	0,0%	0,2%	-0,2%	-1,2%
VLADIMIR CHEMICAL PLANT	BAD	-5,5%	0,0%	-5,5%	-3,8%
VLADIMIR CHEMICAL PLANT	GOOD	-1,1%	0,0%	-1,0%	-0,2%
VLADIMIR CHEMICAL PLANT	GOOD	0,3%	-0,2%	0,6%	7,2%
VLADIMIR CHEMICAL PLANT	BAD	8,2%	0,0%	8,2%	11,4%
VLADIMIR CHEMICAL PLANT	BAD	-2,5%	0,3%	-2,8%	-8,0%
VLADIMIR CHEMICAL PLANT	GOOD	0,0%	-0,4%	0,4%	-1,8%
VLADIMIR CHEMICAL PLANT	BAD	-0,6%	-0,1%	-0,5%	4,1%
VLADIMIR CHEMICAL PLANT	BAD	-2,4%	-0,1%	-2,3%	-2,8%
VLADIMIR CHEMICAL PLANT	GOOD	-2,4%	0,0%	-2,4%	-4,4%
VLADIMIR CHEMICAL PLANT	BAD	6,7%	-0,3%	7,0%	4,6%
WORLD TRD.CENTER MOSCOW	GOOD	0,0%	0,0%	0,0%	0,8%
WORLD TRD.CENTER MOSCOW	BAD	0,5%	0,0%	0,5%	1,2%
WORLD TRD.CENTER MOSCOW	GOOD	-1,8%	0,1%	-1,9%	-2,7%